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NORTH CAROLINA DEPARTMENT OF AGRICULTURE

1977-79 PROGRAM PLAN

PROGRAM DEFINITION





North Carolina Department of Agriculture

Program Definitions

<u>Program</u>	<u>Page</u>
<u>Subprogram</u>	
Administration -----	1
General Administration -----	2
Administrative Services -----	3
Publications -----	4-5
Agricultural Services and Development -----	6
Markets -----	7
State Farmers Market -----	8-9
State Farm Operations -----	10
Agronomic Services -----	11-12
Federal-State Crop Reporting Service -----	13
Warehouse System Operations -----	14-15
N. C. Rural Rehabilitation Corporation -----	16-17
Consumer Protection -----	18
Analytical Administration -----	19-20
Commercial Feed and Pet Food -----	21-22
Food, Drugs, and Cosmetics -----	23-25
Plant Protection -----	26-30
Structural Pest -----	31-35
Pesticides -----	34-36
Animal Health -----	37-39
Meat and Poultry Inspection -----	40-41
Weights and Measures -----	42-43
Gasoline and Oil -----	44-45
Seed Testing -----	46-47
Commercial Fertilizer -----	48
Education and Research -----	49
Research Stations -----	50
Museum of Natural History -----	51-52
N. C. State Fair -----	53-54
Distribution of U.S.D.A. Donated Foods -----	55-56



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Agriculture

Administration Program

# I. PROGRAM DEFINITION

## A. Statement of Purpose:

The Administration Program acts to give overall direction, supervision and staff support to all programs of the Department of Agriculture. It is comprised of the Commissioner's Office, his staff assistants, Personnel, Accounting and Budget, Purchasing, Management Systems and Publications.





# Agriculture

## General Administration Subprogram

### I. PROGRAM DEFINITION

#### A. Statement of Purpose:

To direct and supervise all activities and programs of the Department of Agriculture and to provide the necessary leadership for the development of the agricultural industry and protection to the consuming public.

#### B. Statement of Means and Methods:

1. Development of programs, policies, guidelines, etc., for the direction of the Department.
2. Coordination of Program activities for the development of agriculture generally.
3. Coordination of Program activities for the protection of the consuming public.

#### C. Brief History of the Program:

The Department of Agriculture was established in 1877 as a Constitutional Agency.

#### D. Statutory Authority:

Article III, Paragraph 17 of the State Constitution, Chapter 106 of the General Statutes.



## Agriculture

### Administrative Services Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To provide staff and administrative support to all programs and activities of the Department of Agriculture.

##### B. Statement of Means and Methods:

1. Budgetary and accounting support including the collection of receipts for all self-supporting programs and coordination of Federal funds allocated to this agency.
2. Assistance in departmental planning and program development.
3. Personnel management, employee development, and training.
4. Procurement of supplies, equipment, and materials necessary for the operation of the agency.
5. Administration of employee oriented services such as Workmen's Compensation, safety, insurance, service awards, internship programs, etc.
6. Data processing support through a departmental management systems section.

##### C. Brief History of the Program:

The functions of this subprogram have been performed since the establishment of the Department of Agriculture. Effective with reorganization during 1973 it became a unit of Administration. The principle operations within the subprogram were identified at that time as: Controller's Office (also serving as an assistant Commissioner), Budget and Accounting, and Personnel. In 1975 the management systems effort was started under a cooperative arrangement with the Statistical Reporting Service (USDA).

##### D. Statutory Authority:

Article III, Paragraph 17 of the State Constitution Chapter 106 of the General Statutes.





## Agriculture

### Publications Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of this program is to provide information which is of importance to the farmers and consumers of North Carolina.

Agricultural information will include marketing, feed, seed, pesticide and fertilizer information; animal shelter; and crop prospects.

Consumer information will be directed towards informing the public of other consumer service programs in the department. These include structural pest control, plant health, food and drug inspection, gas and oil, weights and measures and meat inspection.

##### B. Statement of Means and Methods:

1. Timely news releases containing pertinent agricultural and consumer information and distribution of these releases to the appropriate news media.
2. Publication of the Agricultural Review on a bi-monthly basis. Containing agricultural information and agricultural want ads and information on consumer service programs of the department. The mailing list for this publication includes 90,000 names and is growing by approximately 400 each month.
3. Publication of the bulletin series including the Feed Report, the Fertilizer Report, the Tobacco Report and the Pesticide Report, all published annually.
4. Provide secretarial service to the Board of Agriculture by maintaining minutes of each meeting and carrying out the actions of the Board. This is done by legally filing of rules and regulations with the Attorney General and Clerks of Court and printing for general distribution as requested. Recent activity under the Administrative Procedures Act has materially increased the value of work in this area.
5. Periodic evaluations to determine effectiveness of actions and redirection as needed to better accomplish objectives.

##### C. Brief History of the Program:

The Publications office has long played an important role in the program of the North Carolina Department of Agriculture.





The "Agricultural Review" has been printed for about 65 years.

D. Statutory Authority:

Chapter 106, of the General Statutes.



## Agriculture

### Agricultural Services and Development Program

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

This program is comprised of those activities within the Department of Agriculture which are designed to provide support to the agricultural industry. It is service oriented as opposed to regulatory. The subprograms involved provide a wide range of services from market development and promotion of North Carolina products to loans for farm ownership and development. Other services include the operation of the state farms system, soil testing and plant analysis, and statistical reports on agricultural production.





## Agriculture

### Markets Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

Provide technical assistance and information to the general public as a means of increasing the efficiency of marketing North Carolina agricultural products.

##### B. Statement of Means and Methods:

1. Advise and assist producers with new marketing techniques and keep them informed of conditions that could affect the market for their products.
2. Assist individuals or firms at all levels of marketing with quality improvement and operating efficiency techniques to assure maximum returns.
3. Promote the use and consumption of North Carolina products both within and outside the state.
4. Determine and certify the official grade of farm products to provide a fair basis for trading.

##### C. Brief History of the Program:

The Division of Markets was established in the N. C. Department of Agriculture in 1923. Initially, the Division's activities were centered around the state's livestock industry but within a brief period services were expanded to include fruits, vegetables and eggs. Later, or in the early thirties, the Division initiated its daily market news service which issued official reports of market conditions on all of the state's principal farm commodities. With the passage of the Research and Marketing Act in 1946 by the U. S. Congress, North Carolina was among the first states to utilize federal funds on a matching basis from this Act to expand its marketing services. This began in 1947 and increased funds during the ensuing years made it possible for the Division to enlarge its staff to its present level and vastly increase its services to the state's agricultural industry. During this same time the Division entered into cooperative agreements with the U. S. Department of Agriculture to expand its market news service and to provide official grading for fruits, vegetables, peanuts, grain, hay, poultry, eggs, livestock and red meats.

##### D. Statutory Authority:

The Division of Markets was established in 1923 by the Commissioner of Agriculture.





## Agriculture

### State Farmers Market Program

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To expand marketing services to farmers, to do experimental work in the use of marketing equipment, to extensively study this type of market for farm produce, and to educate the farmers on the best marketing methods for quality products including grading, sizing, packaging, etc.

##### B. Statement of Means and Methods:

1. Providing facilities in a centrally located area where farm producers, wholesalers, retailers, and consumers can meet and transact business.
2. Providing assistance to farm producers in selecting commodities to grow which are in greatest demand.
3. Advising the farm producers as to proper grading, packaging, and care of the products in order for them to receive top prices for their produce.
4. Furnishing the news media daily information as to prices, supply, and demand of farm produce.
5. Assisting persons interested in establishing similar types of markets in other parts of the state by making available to them information as to overall operations, problems, and needs of such a facility.

##### C. Brief History of the Program:

The State Farmers Market was built by private enterprise and opened in 1955. It was purchased by the State of North Carolina in 1961, and the State Department of Agriculture was designated as the agency responsible for management and operating procedures.

The Market was built, based upon the needs for a centrally located facility. Prior to 1955, the fruit and vegetable wholesale dealers were scattered over Raleigh. As the population grew and traffic became more and more a problem, it was most difficult for the grocerymen and small wholesale firms within a radius of 150 miles of Raleigh to purchase needed supplies without considerable inconvenience and excessive waste of time.



In addition, the market was to provide a place where the small farmers could sell their produce, that is, the farmers who did not produce in sufficient volume to justify the expense of grading, sorting, and packing their produce to meet the requirements for long distance shipments.

D. Statutory Authority:

Chapter 1038, Session Laws of 1961





## Agriculture

### State Farm Operations Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To provide a good basic supply of food of high quality and economically produced for residents in the Department of Human Resources institutions and to engage in a cooperative program providing facilities and large number of animals for research projects with the North Carolina State University.

##### B. Statement of Means and Methods:

The State Farm Operations consists of a central office in Raleigh which directs the activities of the various farm units composing the total operation. There are five large farms plus seven small farms which include considerable woodland acreage. The food produced on these farms goes chiefly to the state mental health facilities: Caswell Center, Cherry Hospital, Dorothea Dix Hospital, John Umstead Hospital, Broughton Hospital, Murdoch Center, O'Berry Center and Western Carolina Center. Foods also go to the following youth services schools: C. A. Dillon, Stonewall Jackson School, Dobbs School and several other small state institutions. A farm manager at each of the larger farms directs the activities of the units under his supervision. The State Farm Operations Division, in cooperation with the dietary staff of each institution, plans for the appropriate quantity and kinds of foods to be produced and delivered to the institutions. Cooperative research with the North Carolina State University is carried out at the various farm unit animal herds. Costs of such research activities is borne chiefly by the North Carolina State University.

##### C. Brief History of the Program:

An Act of the General Assembly in April 1974 directed the transfer of farm lands from the Department of Human Resources and the Department of Corrections to the N. C. Department of Agriculture. The legislation further specified that the Department of Agriculture should continue operating the land as farms or to rent the land until such time as the General Assembly or some other proper agency of government can ascertain the best use of such farm land. Also the legislation created a policy making body within the Department of Agriculture known as the State Farm Operations Commission.

##### D. Statutory Authority:

House Bill 1999, 1973 Session (Second Session 1974).  
106-26.7 thru 106-26.12.





## Agriculture

### Agronomic Services Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To provide diagnostic services and follow-up advice to farmers and home-owners on crop production, soil conservation, and environmental quality.

##### B. Statement of Means and Methods:

The Agronomic Services Subprogram provides all citizens of North Carolina, upon request, diagnostic services and follow-up advice on soil testing, plant analysis, and nematode assay.

The soil testing laboratory analyzes samples to determine chemical and organic content. Nutrient and management recommendations are then made to correct deficiencies or toxicities by the application of lime, fertilizer and other soil amendments, in order to achieve maximum economic yield or more healthy plants.

Chemical analysis of plant parts is a service utilized to monitor the nutritional status of plants during the growing season in order to detect deficiencies or toxicities. Corrections can often be made immediately, upon discovery by test results, to prevent the total loss of a crop.

A third related service checks for the presence of nematodes, which are one of the principal limiting factors in agricultural production. The assay indicates whether or not expensive chemical control measures are necessary before the crop is planted.

While the major emphasis of these programs are the economic production of food and fiber, emphasis is also given to how these services can aid in soil conservation and environmental quality.

The central office in Raleigh provides the testing and diagnostic advice with follow-up advice and education being provided by the central office staff and the Regional Agronomist in the northeast.

The Agronomic program in North Carolina is a cooperative arrangement between this subprogram and N. C. State University. The Department of Agriculture is responsible for service, methodology research, and limited field calibration.

##### C. Brief History of the Program:

A tax was imposed on fertilizer, lime and landplaster by the 1938 General Assembly to establish the Soil Testing Division (now Agronomic Division). During the ensuing years a full scale research, education, and service program in soil testing was established with close coordination being achieved with N. C. State University around 1944. The 1971 Session of





the General Assembly provided new impetus to the program by approving and funding the Plant Analysis and Nematode Advisory services (delayed funding) as well as a new building to house the combined services.

Much needed additional research, educational, and service efforts were provided for by the 1973 General Assembly through their approval of a cooperative greenhouse and Regional Agronomist for the northeast. During this time the Division name was changed to Agronomic Division.

In April of 1974 the division moved into the new facility and established the Plant Analysis and Nematode Advisory services on a full scale.

D. Statutory Authority:

Chapter 106, Article 22 and HB 1902, Funds for N.E. Agronomist, 1973.



## Agriculture

### Federal-State Crop Reporting Service Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purposes:

Provide official estimates and trends in agriculture production and prices and other relevant agricultural information for farmers and the general public in farm production and marketing planning.

##### B. Statement of Means and Methods:

The central office conducts surveys to obtain data on crop and livestock production, price information, and progress in crop development. Additionally, an annual enumeration, farm census, of crop acreage, livestock numbers and land utilization is made in cooperation with County Commissioners. News releases and detailed publications are prepared on a timely basis to share these survey data with North Carolina farmers, the general public, farm organizations and the Legislature to assist in making intelligent decisions on programs concerning agriculture in the State.

##### C. Brief History of the Program:

USDA crop and livestock official estimating began in North Carolina in 1918. The State entered into a cooperative agreement with USDA in 1921 expanding the program and enacting the State Farm Census Law. The program mission has remained essentially unchanged but the scope and methodology has enlarged and improved considerably over time.

##### D. Statutory Authority:

Chapter 106, Articles 1 & 43





## Agriculture

### Warehouse System Operation Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To protect the financial interests of North Carolina by stimulating the development of an adequate warehouse system for cotton and other agricultural commodities, to enable growers to more successfully withstand and remedy periods of depressed prices, and to provide a modern system whereby cotton and other agricultural commodities may be profitably and scientifically marketed.

##### B. Statement of Means and Methods:

1. License private or corporate warehouse property for the warehousing of agricultural commodities as a component unit of the State Warehouse System.
2. Require bonds to safeguard the interests of the State and of depositors of agricultural commodities with valid, subsisting, and duly authenticated official negotiable warehouse receipts issued under and pursuant to GS 106-441, or the pledgee or transferee of such official negotiable warehouse receipts under GS 106-442.
3. Provide a system of examination and supervision of all licensed public storage warehouses in cooperation with the Warehouse Service Branch, Agricultural Marketing Service, U.S.D.A.
4. Invest State Warehouse System Fund in secured first mortgage notes or bonds to aid and encourage the establishment of warehouses operating under the system.
5. Require financial statements from all local managers.
6. Insure and keep insured to its full value all cotton or other agricultural commodities stored in warehouses operating under the system.
7. Require daily reporting for insurance purposes of all cotton or other agricultural commodities.
8. Approve tariffs of all licensed warehouses.
9. Approve all accounting procedures relating to storage obligations.



NOTE: The system is backed and operates out of a guarantee fund which resulted from a tax placed on cotton during the period from 1920 to 1922. .

C. Brief History of the Program:

The North Carolina Warehouse System program has been in operation since 1920. The program was started, at the request of farmers, warehousemen, and other agricultural leaders, to provide for more orderly marketing of agricultural products. From the enactment of the legislation until June 30, 1922, twenty-five cents per bale ginned was collected through the ginners and paid into the State Treasury to be held there as a special guarantee or idemnifying fund to safeguard the State Warehouse System against any loss not otherwise covered.

D. Statutory Authority:

GS 106, Article 38





## Agriculture

### North Carolina Rural Rehabilitation Corporation Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To serve as a social and financial instrumentality in assisting to rehabilitate rural individuals and families by enabling them to secure subsistence and gainful employment from the soil and/or from other rural related enterprises in order to make them self-sustaining citizens and thereby reduce the burden of public relief for the needy and unemployed.

##### B. Statement of Means and Methods:

1. Management of federal funds that finance the corporation's activities.
2. Loans made to rural oriented industries to provide gainful employment for rural families.
3. Loans to individuals for the purchase of farms or improvements to farms.
4. Cooperation with FHA in making loans to rural families for purchase of farms or improvements to farms.
5. Student loans to students from rural families who otherwise could not attend college because of financial difficulties.
6. Investments in FHA securities in order to provide additional funds for loans (made by FHA) to rural families.
7. Administration of property owner or in which the corporation has reversionary rights.
8. Other rural investments and grants that have prior approval of the Federal Government.
9. The corporation is governed by a nine member board consisting of the Commissioner of Agriculture, the Director of the Co-operative Agriculture Extension Service of N. C. State University, the Director of the Division of Vocational Education of the State Department of Public Instruction, and the State Director of the Farmers Home Administration who serve in an ex-officio capacity. In addition, five members are appointed by the Governor for three year terms. Supporting staff functions are provided by the Department on a reimbursement basis.



C. Brief History of the Program:

The N. C. Rural Rehabilitation Corporation, a nonprofit corporation organized by members of the former N. C. Emergency Relief Administration, was chartered by the state to carry out the duties and powers of the Emergency Relief Administration. The Corporation was designated a State Agency in 1935.

The Corporation was physically transferred to the N. C. Department of Agriculture in February, 1973.

D. Statutory Authority:

GS 137, Executive Organization Act of 1971.





Agriculture

Consumer Protection Program

# I. PROGRAM DEFINITION

## A. Statement of Purpose:

As the title of this program implies, it is comprised of those subprograms, the purpose of which are to provide protection to the consuming public. The protection sought by the program is product oriented. This point is made to distinguish the effort here from other consumer protection programs in other agencies where fraudulent business practices are the target. The technique employed in this program is composed in part of product registration, inspections during which samples of products may be taken and laboratory analysis to determine if the products meet registered formulas or advertised content. In general the purpose of the program is to provide the consuming public with wholesome, sanitary, properly labeled and accurately weighed or measured products such as livestock feed, fertilizer, pesticides, food, drugs, cosmetics and gasoline.



## Agriculture

### Analytical Administration Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of the Analytical Administration subprogram is to insure the most productive and efficient means of implementing the three major regulatory program areas (food, drug and cosmetics; commercial animal and pet food; and pesticide-fertilizer analysis) with existing resources, as well as to anticipate and plan for the future needs of these programs and any new programs.

##### B. Statement of Means and Methods:

1. By formulation of Division policies within departmental guidelines, including the policies for enforcement of the 7 laws administered by the Division.
2. By frequent consultation with program leaders as to current problems, trends within the regulated industries, and requirements for responding to program needs.
3. By formulation of plans for efficient handling of sample analyses for the Pesticide, Structural Pest and Fertilizer administrative programs.
4. By planning and construction of Division budget proposals, formal work plans (five-year, etc.), and reports.
5. By planning and construction of all law and regulation changes to be presented for legislative or Board of Agriculture action, and the providing of resource information or presentations on these proposed changes.
6. By review of all major regulatory actions, and preparation of any court directed proceedings.
7. By directing of inquiries to the most appropriate sources of information.

##### C. Brief History of the Program:

The administrative subprogram was created in 1973 as a result of Departmental reorganization. During this period, the administrative responsibilities of the Fertilizer and Pesticide Laws were directed to other Divisions. Responsibilities for analysis of samples taken under these programs remained with the Analytical Division.





At the same time, the Dairy Division was merged with the Analytical Division into what was thereupon named the Food and Drug Protection Division. The Director of the Dairy Division became the Deputy Director of the Food and Drug Protection Division, also assuming the duties of the Food Administrator in this categorical program.

D. Statutory Authority:

The Analytical Administration Subprogram operates under the seven laws subsequently mentioned in the Food, Drug and Cosmetic and Commercial Feed and Pet Food subprograms: Ice Cream Law; Food, Drug and Cosmetic Act; Milk and Cream Import Law; Babcock Test Law; Linseed Oil Act; Antifreeze Law; and the Feed Law.



## Agriculture

### Commercial Feed and Pet Food Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of this program is to regulate the manufacture and distribution of commercial feeds, including canned pet foods and specialty pet foods, in the State of North Carolina. The objectives of the program are: (a) protection of the livestock and poultry feeders and pet owners by assuring them of supplies of satisfactory quality which are adequately and accurately labeled, (b) the protection of manufacturers from dishonest competition, and (c) protection of the consumer of meat, milk and eggs by reducing the possibility that these animal products may contain hazardous substances.

##### B. Statement of Means and Methods:

The program provides constraints to prevent or abate undesirable conditions, which is accomplished by strict enforcement of the North Carolina Feed Law and its associated Rules and Regulations.

The activities of the program are essentially as follows:

1. annual registration of commercial feeds, canned pet foods and specialty pet foods;
2. collection and analysis of official samples;
3. assessment of penalties to manufacturers or suppliers for irregularities beyond reasonable limits found in official samples;
4. issuing "State Stop Sale Orders" on or seizure of misbranded, unregistered or grossly irregular lots of feed;
5. cancellation of registration, and criminal or civil action in cases of gross and/or continued violations of the North Carolina Feed Law;
6. inspection of feed establishments employing drugs in manufacturing for their compliance with Good Manufacturing Practice Regulations;
7. annual publication of a compilation of program statistics, i. e. number of samples analyzed, number of deficiencies, stop sales placed, etc.





Program administration and analysis of official samples of products are conducted in the Agriculture Building, Raleigh. There are 15 full-time employees at this location. Additionally, five inspectors (one each at Ahoskie, Angier, Franklinville, Marshall, and Statesville) perform the necessary field work.

No other state or local agency is involved in a program similar to the commercial feed program. Federal and State Laws require medicated feed establishments to conduct their operation in conformity with good manufacturing practices and each medicated feed establishment is required under Federal Law to be inspected at least once every two years. The Department is under contract with the Federal Food and Drug Administration for performing such inspections.

C. Brief History of the Program:

The Commercial feed regulatory program has been in existence since approximately the turn of the century. The Feed Law of 1909 primarily addressed composition of feeds and their adherence to nutritional guarantees. A Canned Dog Food Law enacted in 1939 provided for regulation of canned pet food in a similar manner.

In 1973 the Feed and Canned Dog Food Laws were merged and upgraded into a new Law, conforming closely to the Uniform State Feed Bill authored by the Association of American Feed Control Officials. The new Law provides two major additions to feed regulation: (a) authority for the Department to insure that all feed mills employing medicants use standardized practices of manufacturing to assure safety and effectiveness of the resulting feeds, and (b) allowance of broad umbrella terms for ingredient listings in feed registrations, so as to provide industry with the economic latitude to take advantage of nutrient price fluctuations. Steady progress toward more efficient and effective regulation of commercial feed has been made. Philosophies of sampling and laboratory analysis have been modified to reflect changes in technology in the feed industry; more significance is being placed on medicants (drug and antibiotics), less on the traditional economic measurements, such as fat, fiber and ash content.

D. Statutory Authority:

Article 31C of Chapter 106 of the General Statutes of North Carolina, as adopted in 1973, replaced Article 9 and 13 in the statutes. This law is known as the North Carolina Feed Law of 1973.





## Agriculture

### Foods, Drugs and Cosmetics Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of the food, drug and cosmetic program is to protect the health, welfare and economic interests of consumers, as well as to establish an ethically competitive business atmosphere for the related industries, by insuring that the supply of foods, drugs, cosmetics and medical devices manufactured, stored, sold or distributed within the State is wholesome, unadulterated, properly labeled and produced under sanitary conditions, under purview of the 4 food and drug related laws. Dairy farmers are assured of receiving full value of all milk sold by requirement of dairies to use accurate measuring and testing devices.

Registration and testing of all commercial automotive antifreezes prior to sale as outlined in the Internal Combustion Engine Antifreeze Law is also accomplished in this Branch. The Linseed Oil Law provides authority for regulation of sale of linseed and flaxseed oils.

##### B. Statement of Means and Methods:

The regulatory programs under the designated laws are designed to stimulate a high level of voluntary compliance, through:

1. unannounced sanitation and records inspections
2. laboratory analysis of samples
3. licensing of milk haulers and testers
4. examination of product labeling
5. presale registration of antifreeze products
6. restriction of use (time, place, quantity and method of use) in human and animal drugs
7. informational workshops for industry
8. embargo of suspect products
9. destruction of unfit products
10. issuance of information and warning letters to persistent violators
11. hearings regarding violations





12. civil or criminal proceedings against persistent or flagrant violators
13. dissemination of information regarding food safety and quality.

The administrative and laboratory staffs for this program are located in Raleigh, with 15 inspectors operating from their homes at various locations throughout the State.

The Division has authority for inspection of all facilities handling foods, drugs and cosmetics with the exception of wholesale meat processors. Where other local or state agencies are involved, the Division does not inspect except under extraordinary circumstances. Local Boards of Health inspect Restaurants and retail meat processing facilities. Where a milk shake or soft serve dispensing operation exists within a restaurant, the Division presently inspects this operation only, leaving the balance of the facilities for local health officials, as permits must be issued for the milk shake operation. The State Division of Health Services administers sanitation requirements in shellfish processing plants.

C. Brief History of the Program:

The State Chemist position (and consequently the Division of Analytical Chemistry) was originated in 1901 (G.S. 106-19), primarily for the purpose of analyzing "such fertilizers and products as may be required by this Department". The first food-directed Law was the Artificially Bleached Flour Law, promulgated in 1915 for the purpose of restricting toxic bleaching agents. This was followed by the Bakery Inspection and Ice Cream Laws in 1921, providing sanitary requirements for these facilities. The Dairy Division was created as a separate Division between 1928 and 1930, concentrating on assurance of sanitary and wholesome dairy products. With the enactment of the Food, Drug and Cosmetic Act in 1938 the Division of Analytical Chemistry assumed authority for all foods, drugs and cosmetics inspection and testing, with the exception of dairies and wholesale meat and poultry. In 1974 the Dairy and Analytical Chemistry Divisions were merged into the Food and Drug Protection Division, with the State Chemist as Director and the former Dairy Division Director as Deputy Director and Administrator of the food inspection and compliance programs.

At the request of the Department, the 1975 General Assembly vioded the Artificially Bleached Flour Law, the Bakery Inspection Law, the Oleomargarine Law, the Bottling Plant Law, and the Flour, Bread and Corn Meal Enrichment Act. The products in question were deemed to be covered in substance by a revised version of the State Food, Drug and Cosmetic Act enacted by the 1975 General Assembly. Adoption of Title 21, Code of Federal Regulations, by the N. C. Board of Agriculture, as the



regulations governing intrastate traffic of foods, drugs, cosmetics and medical devices placed this state in uniform agreement with the federal government, and set the stage for reciprocal work agreements and contracts so as to maximize utilization of federal and state resources.

D. Statutory Authority:

<u>Law</u>	<u>Statutory Citation</u>	<u>Date of Enactment</u>	<u>Purpose</u>
Food and Drug Related:			
Ice Cream Law	Art. 26, Ch. 106	1921	Sanitary requirements for ice cream making operations
Food, Drug and Cosmetic Act	Art. 12, Ch. 106	1939	Prohibition of adulteration or misbranding of any article during manufacture, distribution or sale; establishment inspection and sample analysis
Milk and Cream Import Law	Art. 28A, Ch. 106	1949	Regulate importation of raw milk and cream into N. C.; permits; records audit
Babcock Test Law	Art. 29, Ch. 106	1951	Training, testing and licensing of all commercial milk haulers, weighers, and testers
Commercial Product Testing:			
Linseed Oil Act	Art. 32, Ch. 106	1917	Prevention of sale of adulterated or misbranded linseed or flaxseed oils
Internal Combustion Engine Antifreeze Law	Art. 51, Ch. 106	1949	Registration and testing of antifreezes; prohibition of adulterants





## Agriculture

### Plant Protection and Biological Asset Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To protect the plants, plant products and other biological assets of North Carolina from biological pollution and the adverse effects of pests, harmful organisms and diseases. Program activities touch the lives of all the citizens of our state by protecting the production of food and fiber, insuring a favorable marketing status for products exported to other states and nations and insuring that our citizens do not have to personally experience discomfort, inconvenience or monetary loss from certain pests. Subprogram duties range across the state's forests and fields in protection and enhancement of ornamental, native and other beneficial plants, as well as beneficial biological organisms, such as honeybees, parasites, predators, and diseases of destructive pest species.

##### B. Statement of Means and Methods:

These programs are designed to protect the agriculture, people, and environment of North Carolina from the threat of pests.

1. Regular surveys are made of the flora and invertebrate fauna of North Carolina in order that accurate records may be maintained of the occurrence, biology, distribution, abundance and activity of plant pests and biological organisms, both beneficial and harmful to man and his environment. These surveys are the basis for pest control, environmental protection, and agricultural production work and serve all the citizens of North Carolina and indirectly the United States. Special surveys are made to detect newly introduced pests, those of quarantine significance, and diseases of bees. Faunal record lists are published periodically and identification and informational services are provided for our staff, cooperating scientists, and the general public as a means to accomplish program goals.
2. Plant pest quarantine regulations are imposed as a means of retarding spread of hazardous pests and of limiting distribution of such pests until action can be taken to control, manage or eradicate them. Quarantine programs help to prevent spread of pests and insure that agricultural commodities can move in national and international commerce





by having approved treatments or being maintained in a pest-free status. Many quarantines are cooperative in nature with other federal and state agencies.

3. Intense management, control and/or eradication programs are often directed against pests of special significance. Chemical, biological, and cultural methods are integrated to suppress, reduce losses, mitigate, or eliminate pests, as is determined, based on economic, ecologic, and other factors. These programs serve all the citizens of North Carolina directly and range from community assistance control programs to eradication of specific pests such as sweet potato weevil. Many phases of these activities are cooperative with other state or federal agencies and citizens. Divisional technical expertise is made available to developing or maintaining pest management or control programs to those desiring or needing such assistance. Plant pest mitigation programs lessen impact of pests on citizens in some cases relieving health hazards, reducing costs of control by individuals, and insuring a plentiful supply of food and fiber.
4. A beneficial insect laboratory and rearing facility is operated to provide parasites for release as a component in the gypsy moth and other control and mitigation programs. This facility monitors the impact of divisional programs on the biota of an area, evaluates probable impact or proposed actions, and maintains release, distribution, and efficacy records of beneficial organisms released in North Carolina. Many of these activities are cooperative with the United States Department of Agriculture, other northeastern states, and the North Carolina Forest Service.
5. Inspections and certifications are major components of this program. Some examples of these are:
  - a. Transit inspections to detect illegal movement of articles from quarantined areas.
  - b. Nursery inspection and certification as to freedom of nursery stock from pests. Nursery certification insures pest free plants to the public by system of nursery and nursery dealer inspections. By certifying nursery stock to meet standards of other states we protect marketing status.
  - c. Export inspections and phytosanitary certification on commodities meeting pest-free requirements of foreign countries.





- d. Import and postentry inspections are made of plant materials and commodities entering our state from foreign countries to detect possible introduction of new exotic pests. Plant Pest Programs are one method of protecting North Carolina agriculture from exotic pests and pests which occur in other states and not known to occur in North Carolina.
  - e. Constant monitoring and light trap inspections are made in cooperation with the United States Department of Agriculture, Animal and Plant Health Inspection Service at ports, airports, etc., to enable detection and exclusion of new pests.
  - f. Vegetable plant inspections to insure that vegetable transplants moving in commercial channels meet the pest-free, quality, viability, and varietal labeling requirements of the vegetable plant law and regulations.
  - g. Inspections and certifications for bee diseases and pesticide poisonings are made of honeybees as part of our effort to promote and protect the bee and honey industry in North Carolina. The honeybee is vital to the agricultural economy and environment of North Carolina because of its role as a pollinator of plants. These services directly affect beekeepers and pesticide applicators.
  - h. Inspections of activities of persons bringing pests into the state for scientific study. Many of our most severe pests have been brought in for scientific study and allowed to escape.
6. Public relations and informational components are key factors in implementing and enforcing plant pest and biological organism programs. Plant Pest quarantines depend very heavily on public knowledge and cooperation. Assistance is rendered any citizen as requested in such areas as pest control, pollination, beekeeping, identification of problems in production which may be pest related and many related areas.

Many aspects of this program are cooperative with federal or state agencies and institutions while major responsibility for subprogram operation remains with the Pest Control Division. Staff responsibility for the subprogram is divided into two sections (1) The Plant Pest Section, and (2) The Biological Asset Section. Line responsibility is divided among four districts: (1) Western District with headquarters in Asheville, (2) West-Central District with headquarters in Raleigh, (3) East-Central District with headquarters in Raleigh, and (4) Eastern District with headquarters in Greenville.





The Plant Pest Section administers the Plant Pest, Vegetable Plant, Uniform Boll Weevil Eradication and Pest Control Compact laws and regulations adopted pursuant to these laws as well as directs a cooperative greenhouse facility.

The Biological Asset Section administers the Biological Organism, the Insect Pest, the Bee and Honey, Timber Conditions, New Agricultural Industries, and the Diversified Farming Laws. It directs a beneficial insect-bioenvironmental laboratory, and the North Carolina insect collection which is the official North Carolina repository of insects and arthropods.

C. Brief History of the Program:

The Plant Protection and Biological Asset Program had its beginning in the late eighteen hundreds with establishment of the North Carolina Department of Agriculture. Since that time, the program has grown to include:

1. Insect survey of North Carolina, beginning in 1900, involves listing of all species in state, mapping geographical distribution and recording seasonal occurrences.
2. Biological control of pests beginning 1900.
3. Plant pest regulatory aspect beginning in 1906 with regulation of San Jose' scale in peach orchards.
4. The Bee and Honey Program beginning in 1916.
5. Interstate plant quarantine beginning in 1927 with adoption of Japanese Beetle quarantine.
6. Plant pest eradication and transit inspections beginning in 1931 with establishment of phony peach disease eradication program.
7. Chemical control program beginning in 1940's.
8. Environmental concern in early 1970's and greatly increased commodity movement resulted in renewed emphasis on pest management and biological control resulting in the passage of the Biological Organism Law and establishment of a beneficial insect rearing facility in 1973.
9. The Uniform Boll Weevil Eradication Law and the Pest Control Compact Law were enacted in 1975.

In 1972, the Plant Protection Program began evolving into two separate programs:





1. Plant Protection Program
2. Biological Asset Protection Program

Separation of this program became apparent, at staff level, in the 1974 reorganization.

D. Statutory Authority:

The Plant Protection and Biological Asset Program operates under the following General Statutes of North Carolina:

1. Plant Pest Law, G.S. 106-36 and regulations.
2. Vegetable Plant Law, G.S. 106-31b and regulations.
3. Uniform Boll Weevil Eradication Law, G.S. 106-4F.
4. Pest Control Compact Law, G.S. 106-4E.
5. Biological Organism Law, G.S. 106-4D and G.S. 106-65.42.
6. Honey and Bee Industry Law, G.S. 106-22 (4) and regulations.
7. Insect Pests Law, G.S. 106-22 (5).
8. New Agricultural Industries Law, G.S. 106-22 (6).
9. Diversified Farming Law, G.S. 106-22 (11).
10. Timber Condition Law, G.S. 106-21.

Much of the program is carried out in cooperation with the United States Department of Agriculture, Animal and Plant Health Inspection Service, and operates cooperatively under certain provisions of federal laws relating to plant pests and their control.



## Agriculture

## Structural Pest Subprogram

## I. PROGRAM DEFINITION

A. Statement of Purpose:

To protect the interests, health, welfare, and safety of the general public by insuring the performance of quality service by the State's structural pest control industry. To safeguard man's property and environment against pesticide pollution by regulating the quality and quantity of pesticides applied by this industry. To promote and encourage professional industry standards and sound business practices and ethics.

B. Statement of Means and Methods:

1. Requiring written examination for the certification and licensing of all who practice the structural pest control trade in North Carolina.
2. Registration of employees of license holders to establish identification and job classification.
3. Inspection of pesticide and chemical concentrates, as well as pesticide containers, to ensure that the possession, selection, labeling, usage, and storage of pesticides and their containers are in conformance with the rules and regulations.
4. Inspection of pesticide handling equipment, safety equipment, work records, and contractual agreements to ascertain compliance with the law and rules and regulations.
5. Inspection of properties treated for wood-destroying organisms to determine if treatment was performed in accordance with rules and regulations established by the Structural Pest Control Committee. Drawing and analyzing soil samples from treated jobs to ensure that concentration and dosage of applied pesticide meets state requirements.
6. On-the-spot checks of space and residual spray treatments for household pests to ensure that pesticide is applied by certified operators and under conditions set forth in the Committee rules and regulations.
7. Surveillance and inspection of fumigation operations, including structures and carriers, prior to the release of fumigant(s), during fumigation, and at the time of ventilation.
8. Maintain surveillance to reduce the number of itinerants who operate completely outside the law and to discourage structural pest control activities by fly-by-night operators.





9. Encourage license holders to adopt effective sanitation and other non-pesticidal control measures as a means of pest control prevention.
10. Provide technical assistance and information for the industry and general public.

The program is administered by the Chief Structural Pest Officer. This officer serves as Secretary to the Structural Pest Control Committee and is directly responsible to the State Entomologist for carrying out the intent and purposes of this program. Each of the four district offices is in charge of a District Specialist who is responsible for the activities of the inspectors in his district.

#### C. Brief History of the Program:

The Structural Pest Control Program began in 1955 with the enactment of the Structural Pest Control Act. The provisions of the Act provided for the creation of a five-member Structural Pest Control Commission with its members to be appointed by the Governor. The Statute placed the responsibility for the Act and Commission rules and regulations under the Commissioner of Agriculture. The Commission was an independent policy making one without enforcement powers. This created an unwieldy situation, because the Statute did not provide funds for the enforcement of the Act. Amendments to the Statute by the 1967 General Assembly abolished the Commission and created a five-member Structural Pest Control Committee and a Division of Structural Pest Control within the Department of Agriculture. The committee is responsible for making rules and regulations with regard to structural pest control; determining if applicants meet qualifications for licenses; conducting hearings relating to the suspension and revocation of licenses; and to report annually to the State Board of Agriculture the results of all hearings conducted by the Committee. Reorganization, as recommended by the Governor's Efficiency Study Commission and implemented in 1974, provided for the abolishment of the Structural Pest Control Division and the creation of a new Pest Control Division. All structural pest control functions were placed under this new division. Enforcement of the law and rules and regulations were carried out entirely with fees from 1955 to 1969. The fees have never been sufficient to maintain a rigid enforcement program. The chronological order of changes in the program are as follows:

- 1955 - Structural Pest Control Law enacted; Structural Pest Control Commission created.
- 1957 - Structural Pest Control Law amended; license fees increased.
- 1967 - Structural Pest Control Law amended; Commission abolished; Committee and Division of Structural Pest Control created.
- 1973 - Structural Pest Control Law amended to meet Federal Statute.
- 1974 - Structural Pest Control Division combined with Pesticide Branch and Entomology Division to form new Pest Control Division.
- 1975 - Structural Pest Control Law amended to bring statute in compliance with Federal Law.



D. Statutory Authority:

G. S. 106-65.22 - Structural Pest Control Act of North Carolina.

G. S. 106-65.23 - Provides for the creation of the North Carolina Structural Pest Control Committee and sets forth duties and responsibilities of the Committee.





## Agriculture

### Pesticide Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To insure proper use, application, sale, disposal, storage, quality, and registration of pesticides as required by the North Carolina Pesticide Law of 1971, thereby promoting a safer, healthier, more secure environment.

##### B. Statement of Means and Methods:

1. Registration of all pesticide products marketed in North Carolina. Upon receipt of application and \$25.00 registration fee, product's label is carefully reviewed to assure that the user has available proper direction, precautionary information, hazards, first aid and/or antidote information.
2. Field inspection of marketed pesticides for proper labeling. Sampling for assay at point of manufacture, storage, sale, and use.
3. Pesticide samples are submitted to the Department's Pesticide Laboratory for analysis. Samples taken at the point of manufacture, storage, and sale are analyzed to make certain that the product measures up to the label guarantee, and to ascertain that it is not contaminated. Use and crop samples are analyzed to make sure that the applicator has applied the correct pesticide and that he is following label directions.
4. Stop sale and/or seizure of misbranded or adulterated products and assessment of penalties against deficient products.
5. Establishment of a "restricted-use" list of pesticides; i.e., those materials either so potentially toxic to man or so environmentally contaminative as to preclude use without certain defined restrictions.
6. Testing and licensing of all qualified pesticide dealers, commercial pesticide applicators, and pest control consultants (\$25.00 license fee).
7. Mandatory inspection of all aircraft used for the aerial application of pesticides (\$10.00 inspection fee). Random inspection of ground pesticide application equipment. These inspections are intended to assure that the equipment can be properly calibrated and is in acceptable working condition.





8. All tanks used for bulk storage of pesticides must, upon inspection, meet required specification before pesticides may be stored in them.
9. Investigate accidents or incidents involving pesticides to determine what steps should be taken to avoid immediate danger to man or the environment and to determine if additional or revised labeling is appropriate.
10. Revocation of product registrations and/or individual's licenses for repeated violations of the Law.
11. Drafting or assisting in drafting or revising proposed regulations under the North Carolina Pesticide Law of 1971. Examples: Aerial Application Requirements, Disposal, Restricted-Use Pesticides, Aerial and Ground Applicator Insurance Requirements, allowable deviations from Guaranteed Analysis, etc.
12. Assisting in drafting or responding to proposed regulations under the Federal Environmental Pesticide Control Act of 1972. Examples: Applicator Certification Requirements, Re-entry Standards, Experimental Permits, Classification of Pesticides, State plans, Books and Records, etc.
13. Maintain information and records of the North Carolina Pesticide Board and Pesticide Advisory Committee.

The enforcement of the North Carolina Pesticide Law of 1971 and regulations adopted by the North Carolina Pesticide Board, is the responsibility of the Pest Control Division, North Carolina Department of Agriculture. Administrative functions are handled by the pesticide staff while field enforcement is coordinated through the Eastern, West Central, East Central, and Western Regional Offices with inspectors' headquarters throughout the state.

The Pesticide Laboratory is responsible for analysis of pesticide samples taken at the point of manufacture, storage, sale, and use. The laboratory administration is under the Food and Drug Protection Division.

The Environmental Protection Agency (EPA), Washington, D. C., has similar responsibilities in pesticide registration, pesticide applicator certification, analysis of pesticides, etc. The Federal Environmental Pesticide Control Act of 1972 will require North Carolina to adopt and implement additional pesticide regulatory activities as various required regulations are adopted by EPA.

We coordinate our testing of applicants (dealer, applicator, consultant) for various licenses with North Carolina State University which is responsible for their training.





C. Brief History of the Program:

1947 - North Carolina Insecticide, Fungicide, and Rodenticide Act of 1947 (Article 4A, Chapter 106). Required product registration to protect public and legitimate manufacturers. (Repealed 1971)

1953 - North Carolina Crop Dusting Law (G.S. 4B, Chapter 106). Required registration and licensing of aerial contractors and pilots. Liability insurance or bond required. (Repealed 1971)

1971 - North Carolina Pesticide Law of 1971 (Article 52, Chapter 143). (Amended 1973). Contains essential provisions of previously referred-to laws plus provisions for regulating the sale, use, storage, disposal, monitoring, and commercial application of pesticides. Also provides for investigating pesticide incidents or accidents to determine causative factor(s) and provide for elimination of hazards.

The governor-appointed North Carolina Pesticide Board is the governing authority of the North Carolina Pesticide Law of 1971 and rules and regulations established thereunder. The Commissioner of Agriculture is responsible for administering and enforcing the Law and all rules and regulations established by the Board.

D. Statutory Authority:

North Carolina Pesticide Law of 1971 (Article 52, Chapter 143) (Amended 1973 and 1975).



## Agriculture

### Animal Health Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To control and eradicate animal diseases for the protection of human health, the protection of the livestock and poultry industries, and to assure the consumer of receiving the highest quality of animal products available.

##### B. Statement of Means and Methods:

1. All livestock markets in the state are licensed under this program upon recommendation of the Livestock Market Advisory Committee. Licenses are issued on the basis of proposed facilities meeting necessary sanitation requirements. A program of inspection and supervision is maintained over all such markets.
2. Livestock markets are required to be bonded and must subscribe to certain management practices for the protection of the livestock industry of the State of North Carolina. Market records are checked periodically by livestock inspectors to insure compliance.
3. Rules and regulations concerning the transporting of animals are enforced at all levels of trade. This is necessary to prevent the transportation of diseased animals and the resultant spread of infection.
4. Regulations are developed and enforced concerning the entry of livestock into our state from other states. Health regulations are stringently enforced on these animals to prevent infected and diseased animals from entering North Carolina.
5. Feeders of edible garbage are required to be licensed. These feeders are inspected regularly to see that this material is properly cooked and fed under prescribed sanitary conditions. The cooking requirement is enforced to prevent disease organisms from being carried through raw pork to the live animal. This also has the effect of controlling certain human diseases.
6. Specific disease eradication programs are carried on jointly with the USDA. These include periodic testing and elimination of reactor animals. The diagnostic laboratory system is used for diagnosing animal and fowl diseases. This service is made available to effect rapid diagnosis of disease where this is difficult or impossible for a practicing veterinarian to do. These





facilities are located in strategic areas of the state in order to give the most rapid possible diagnostic service. In many cases, time is extremely important in eliminating a disease problem that could result in great economic loss. The services are particularly important where animals apparently have been poisoned by some source.

7. Chicken and turkey hatcheries are licensed and inspected to prevent the spread of poultry diseases. This service is necessary in preventing the very rapid spread of certain poultry diseases caused by insanitary conditions.
8. Breeder flocks of chickens and turkeys are tested for pullorum and other contagious poultry diseases. This is done to prevent the spread of these diseases through hatcheries.
9. A licensing and inspection program is carried out with rendering plants to insure that livestock diseases are not spread through the handling and processing of dead animals and animal products.

C. Brief History of the Programs:

The Animal Health Program was started in 1898 with the employment of the first State Veterinarian. The purpose has not changed through the years. The opening of the Disease Diagnostic Laboratories beginning with the Waynesville Branch in 1950 and culminating with the opening of the Western North Carolina Animal Disease Diagnostic Laboratory at Arden in 1974 has given added strength and direction to the program.

A Federal counterpart of the State Veterinarian had offices in the Agriculture Building (Raleigh) for many years prior to 1974. His responsibility was to work with the State Veterinarian in coordinating State-Federal animal health programs. Following a reorganization of the Animal and Plant Health Inspection Service (USDA) in 1973, the position was abolished. Federal animal health programs in North Carolina are now administered from an office in Columbia, South Carolina.

D. Statutory Authority:

1. Chapter 80, Article 7A authorizes the Department to register cattle brands.
2. Chapter 106, Article 14A provides for the licensing and regulation of rendering plants.
3. Chapter 106, Article 34 deals specifically with infectious diseases of animals and empowers the State Veterinarian to conduct animal disease control and eradication programs.



4. Chapter 106, Article 35 specifies the requirements for operating public livestock markets.
5. Chapter 106, Article 35A directs the Department to regulate the sale of livestock by auction at public livestock markets and to assure prompt payment for livestock sold.
6. Chapter 106, Article 35B requires the licensing and regulation of livestock dealers.
7. Chapter 106, Article 49 authorizes the Department to participate in the National Poultry and Turkey Improvement Plans and take other action required to protect the health of poultry.
8. Chapter 106, Article 49E requires poultrymen to maintain a disposal pit or incinerator for the disposal of dead poultry.





## Agriculture

### Meat and Poultry Inspection Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To insure a wholesome meat and poultry product for the consumers of North Carolina and to protect the legitimate slaughterer and processor.

##### B. Statement of Means and Methods:

The program provides a meat and poultry inspection service which provides constraints to prevent the slaughter of diseased animals and prevent the adulteration and mislabeling of meat food products.

1. Ante-mortem and post-mortem inspection are performed on all red meat animals and poultry slaughtered under the Meat and Poultry Inspection Service in order to detect diseased animals and unwholesome products before they reach the consuming public.
2. Surveillance inspection of slaughtering and processing facilities is maintained to see that the procedures used in handling and processing of meat and poultry products are in compliance with required sanitary standards.
3. Review of all labels used to assure they meet requirements of the law and regulations, that they supply sufficient information to the consumer and that they are not deceptive.
4. Review of blueprints of additions, changes, or new construction to assure compliance with current regulations.
5. Investigations by compliance staff are conducted on complaints which allege possible violations of the North Carolina Compulsory Meat and Poultry Inspection Laws. Violations of these laws are handled in cooperation with the North Carolina Department of Justice.
6. Inspection procedure directives and training activities are used to insure that our meat and poultry inspectors are aware of current Federal regulations and guidelines. This insures that the laws pertaining to meat and poultry products are administered uniformly throughout all parts of the state.

The program is administered under the state control by central office directorate and has supervisory personnel assigned to eleven areas covering the state. The program is conducted on a 50-50 fund sharing basis with the state having concurrent authority with the Federal Government.



C. Brief History of the Program:

The Meat and Poultry Inspection Service originated July 1, 1962 and provided for inspection of all meat and poultry slaughtered and processed for transportation across county lines. Intra-county operations were exempt from inspection requirements. In 1967, U. S. Congress passed the Wholesome Meat Act and Wholesome Poultry Products Act which required all states to maintain their programs on an equal basis with the Federal. North Carolina entered into Meat and Poultry Inspection Cooperative Agreements with the Federal Government in 1968 and 1971 which allowed for 50-50 Federal-State cost sharing. The General Assembly approved the rewriting and amendments of our laws in 1969 and 1971 at which time North Carolina State Meat and Poultry Inspection Programs were recognized as being at least "equal to" the Federal Inspection Programs. In fiscal year 1975-76, we are maintaining the "equal to" status.

D. Statutory Authority:

Articles 49B and 49C, Chapter 106 of the General Statutes of North Carolina. Sections 106-549.15 thru 106-549.39

Article 49D, Chapter 106 of the General Statutes of North Carolina. Sections 106-549.49 thru 106-549.68B





## Agriculture

## Weights and Measures Subprogram

## I. PROGRAM DEFINITION

A. Statement of Purpose:

To carry out the law in respect to protecting the purchaser and/or seller of any commodity in the State of North Carolina against the misrepresentation of any Product concerning its weight, measure, or length or any other standard of measurement normally accepted in the channels of trade.

B. Statement of Means and Methods:

1. Enrollment in a laboratory auditing program to insure that the North Carolina Primary Weights and Measures Standards Units are identical to the National Standards Units housed at the National Bureau of Standards.
2. Prototype approval of commercial weighing and measuring devices.
3. Periodic unannounced inspections of weighing and measuring devices used commercially.
4. Periodic unannounced reweighing of packaged products both retail and wholesale in the channels of trade.
5. Checking package labels to insure that the net contents statement is legible and that it meets all other legal requirements.
6. Periodic unannounced reweighing of commercial bulk deliveries.
7. Tobacco barn curer installation inspection.
8. Licensing of Public Weighmasters.
9. Registration of servicemen who repair commercial weighing and measuring devices.
10. Approval of plot plans for liquid fertilizer installations.
11. Issuance of information and/or warning letters to firms not in compliance with the law.
12. Instituting criminal proceedings against persons, firms, or corporations who clearly and substantially are in violation of the law.
13. Dissemination of information - news releases, various articles for newspapers and trade journals, addresses before public gatherings, consumer, and trade groups.



C. Brief History of the Program:

The Weights and Measures Law was written in 1927, establishing the Office of Superintendent of Weights and Measures. With the advent of prepackaged products and large supermarkets, the program was expanded to cover more than simply verifying the accuracy of market scales. Because of changing trade customs and merchandising methods the 1975 General Assembly completely revised the Weights and Measures Law.

D. Statutory Authority:

Chapter 81 of the North Carolina General Statutes.





## Agriculture

## Gasoline and Oil Subprogram

## I. PROGRAM DEFINITION

A. Statement of Purpose:

To insure that the consumers of petroleum products in North Carolina receive the quality and quantity of product as represented to them. Also, these laws and regulations assure that the State of North Carolina is in a position to receive the correct amount of tax revenue on distributed products.

B. Statement of Means and Methods:

1. All brands of gasoline are registered by this Division to establish identity of the brand.
2. All metering devices for petroleum products are tested periodically for accuracy and safety. This includes gas station pumps, home delivery trucks and other delivery systems. A seal of accuracy is affixed to the device and without this seal, use is illegal.
3. Bulk delivery vehicles are calibrated and certified by this Division, each being sealed to contain a definite quantity in each compartment. Such vehicles are required to be calibrated and certified prior to being used in commerce.
4. The Gasoline and Oil Board establishes quality standards for petroleum products sold in North Carolina. Analyses are run on petroleum products to insure the consumer of getting the products as represented.
5. Stop sales are issued on petroleum products not meeting required standards.
6. Metering devices found to be out of tolerance are sealed against further use until they are corrected.
7. Minimum standards for quality and safety are established for the storage, handling, and distribution of Liquefied Petroleum Gas. Each facility is inspected and approved before a registration to operate is issued.
8. All LP-Gas dispensing vehicles are checked on a yearly basis to insure safety and accuracy of their metering devices.
9. Individual complaints are investigated immediately to see that the consumer is adequately protected.





10. Inspectors with portable laboratories run minor analyses on the spot and collect samples at point of sale for complete analyses at the Central Laboratory in Raleigh. There are twelve inspectors operating the portable units throughout the state, who have their headquarters at their homes.
11. Twenty-five Gasoline and Oil Inspectors who test the various weighing and measuring devices are located at various areas throughout the state with assigned territories, using their homes as headquarters.
12. There are five calibrators who routinely inspect home delivery and bulk delivery trucks on a periodic schedule.
13. A Central Laboratory is located in Raleigh to which samples of various types are sent for complete analyses to determine their compliance with meeting the registered specifications and other requirements.
14. The Division maintains direct contact with the various companies and trade associations by dissemination of information through the news media and addresses to trade and civic organizations.
15. The Division registers all mechanics who repair petroleum dispensing equipment to insure that accurate repair service is available.

C. Brief History of Program:

The first laws relating to petroleum products were passed in 1903, at which time heating oil, "kerosene", was being used primarily for the purpose of lighting. Some of this product contained such a large amount of sulphur that it was found to be a health hazard as well as causing the deterioration of various fabrics and other materials. In 1937, under Chapter 119, the legislature rewrote the laws relating to these products, and the Division was transferred to the Department of Revenue. In 1949, the legislature transferred the Division back to the Department of Agriculture where it has remained. The reason for the return to the Department of Agriculture was its relationship to the activity of the Weights and Measures Division and the familiarity of regulatory work and analytical work of the Department of Agriculture. Until 1955, the enforcement of the LP-Gas law and rules and regulations were under the Department of Insurance; however, the industry, realizing the need for stronger laws and regulations to protect themselves and the users of such products, requested the transfer to the North Carolina Department of Agriculture as no enforcement or rules and regulations had been undertaken by the Insurance Department. New laws were drawn and regulations adopted which have been amended as needed.

D. Statutory Authority:

Chapter 119 of the North Carolina General Statutes.





## Agriculture

### Seed Testing Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To assure complete and truthful representation of the planting quality of seeds offered to all seed buyers or consumers in the state.

##### B. Statement of Means and Methods:

1. Statutes requiring the form and content of seed identification and quality labeling are kept updated commensurate with improved analytical techniques and in reasonable uniformity with national model laws and the Federal Seed Act.

Updated regulations are presented to the North Carolina Board of Agriculture for promulgation, to more effectively carry out the enforcement of the statutory requirements.

2. a. Seed specialists (six new employed) review seed stocks exposed for sale by 4,000 seed distributors in the state. (They live in and work six inspection districts.) These specialists are trained in seed quality analysis and make observations of the observations of the physical quality and satisfactory labeling of that quality on the site of inspection. Obvious violations result in immediate stop-sale orders on the site. Samples which support stop-sale orders are forwarded to the central laboratory for confirmation. Samples are held in evidence of the violation at the central office. Follow-up procedures are directed from the central office, which include instructions for bringing the lot of seeds into compliance with the N. C. Seed Law, or the subsequent removal of the seeds from the market.

Random inspection samples are sent routinely to the seed laboratory for evaluation of viability (germination) to assure that this quality is being truthfully represented. Stop-sale orders are made on lots misrepresented for viability.

Field verification plots are planted annually for tobacco and hybrid corn, and in random years for wheat, oats, barley, rye, sorghum, and soybeans to verify variety and cytoplasm identity.



Records of seed distribution, required by statute and subject to inspection, are reviewed to assist in recall of seed lots of substandard quality.

- b. The official state seed testing laboratory is centrally maintained and staffed for the purpose of verifying the label claims of seed quality, to provide information of planting quality to North Carolina citizens for planting purposes, to seedsmen for labeling purposes, to certified seed growers to determine if seeds meet seed certification standards, and to state agencies (such as the Landscape Division, Department of Transportation) to verify that seeds supplied on state contract meet state bid specifications.
- c. The seed law and regulations require the recording of all tobacco varieties, corn hybrids, and blends of any kinds of seeds as prerequisite to their lawful sale.

C. Brief History of the Program:

Legislation has required seed quality labeling since 1909. There has been constant updating of the statutes as changing seed distribution patterns, improved analytical procedures, and new problems have required.

D. Statutory Authority:

Article 31, Chapter 106, establishes the requirements of law and authorizes the North Carolina Commissioner of Agriculture to enforce the statutes. North Carolina Department of Agriculture Regulations, Chapter VII, establishes the procedures under which the enforcement of the statutes are implemented.





## Agriculture

### Commercial Fertilizer Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purposes:

To insure the consumer and industry of honest and legitimate goods. It is primarily a law of labeling, registration, and analysis control to assure that the consumer is getting quality products in order to insure ample production of food and fiber. This subprogram encompasses two laws: The North Carolina Fertilizer Law and the North Carolina Lime and Land-plaster Law.

##### B. Statement of Means and Methods:

1. We monitor approximately 10 percent of the two million tons of fertilizer sold in this state annually by collecting approximately 10,000 samples.
2. There are heavy monetary penalties for short analysis goods, while other violations of the law are misdemeanors.
3. Licenses are issued to companies registering fertilizer.
4. The field force at present is two permanent and up to twelve temporary inspectors.
5. Analyze samples to check for compliance.
6. Register approximately 3,000 grades annually from about 150 different companies.
7. Assess penalties on deficit analysis samples.
8. Publish annual fertilizer report showing results of each year's work.
9. Investigate complaints from consumers throughout the state.
10. Approve labeling to be used on products.

##### C. Brief History of the Program:

The program began around the turn of the century with the first State Chemist being employed in 1901. His duties were to carry out the provisions of the North Carolina Fertilizer Law. This program is strictly a state program with no other agency, state or federal, involved.

##### D. Statutory Authority:

Article 2, Chapter 106 and Article 8, Chapter 106 of the General Statutes of North Carolina.



## Agriculture

### Education and Research Program

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of this program is the advancement of agriculture through a program of research in cooperation with N. C. State University, by the conduct and maintenance of the annual State Fair and fairground facilities and by providing displays, collections and exhibits to promote citizen understanding of the state's natural resources.





## Agriculture

### Research Stations Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

The purpose of agricultural research is to develop new varieties, techniques, schemes, etc. of production, thereby making farming more efficient, productive and profitable which will, in the long run, benefit the consumer through lower prices and higher quality products.

##### B. Statement of Means and Methods:

The fifteen outlying research stations are distributed across the state to provide the environment, soil and climatic conditions needed to meet needs and problems of all production areas of the state. These stations and the physical facilities thereon provide field laboratories for investigation of problems in field crops, forages, horticultural crops, swine, beef and dairy cattle, poultry, and other animal life. These facilities also allow scientists to seek improved varieties, strains, etc. to advance production potential in North Carolina. These research practices provide a pictorial display for farmers and others to view and visually learn what can be accomplished by adapting recommended practices as suggested by scientists of the Agricultural Experiment Station at N. C. State University.

Research Stations are often used as sites for training and educational centers. Extension employees, 4-H, FHA groups, farmers and agri-business people meet on stations for judging contests, training classes, field days, and individual visits for information and latest suggested programs and practices for production of food and fiber.

The administration of all fifteen stations is coordinated through the Director of Research Stations' office in Raleigh.

##### C. Brief History of the Program:

The N. C. Department of Agriculture and the N. C. Agricultural Experiment Station have cooperated since 1877 and the concept of outlying research stations has been in effect since 1885. The program began to fully develop in the early 1900's and has expanded to its present system.

##### D. Statutory Authority:

Chapter 106, Article 1.



# Agriculture

## Museum of Natural History Subprogram

### I. PROGRAM DEFINITION

#### A. Statement of Purpose:

To function as a reservoir of knowledge of our State's natural resources.

#### B. Statement of Means and Methods:

1. By maintaining permanent exhibits illustrating the flora, fauna and minerals of the State.
2. By maintaining a temporary exhibit program.
3. By maintaining a staff of taxonomic specialists who solve problems involving the flora, fauna, and minerals of the State.
4. By maintaining a liason with the University community to:
  - a. Advise graduate facilities on significant research problems.
  - b. Inform faculties and students on museum facilities and programs available to them.
5. By developing an effective public relations program.
6. Conduct an education program to serve the museum's stated purpose.

#### C. Brief History of the Program:

- 1851 Chapter 106, Article 1. General Assembly authorized "a cabinet (museum) or collection to illustrate the agricultural and other resources of natural history of the State".
- 1879 Placed under supervision of the North Carolina Department of Agriculture.
- 1959 H. B. 966. Chapter 1280. Roy Hampton Museum, Beaufort, N. C., placed under jurisdiction of North Carolina State Museum.
- 1961 H. B. 1027. Chapter 1180. Established an Advisory Commission for the State Museum of Natural History.

The Advisory Commission is composed of the following members:  
 Director of the Museum of Natural History





Commissioner of Agriculture

State Geologist

State Forester

Director of the Institute of Fisheries Research of the  
University of North Carolina

Director of the North Carolina Wildlife Resources  
Commission

Superintendent of the Public Instruction "and at least  
three persons appointed by the Governor representing  
the East, Piedmont and Western areas of the State"

D. Statutory Authority:

GS, Chapter 106, Article 1, 1851



## Agriculture

### State Fair Subprogram

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

To present the annual North Carolina State Fair, which includes agricultural exhibits, industrial exhibits, educational exhibits, and entertainment features, for the enlightenment and enjoyment of the general public. To provide buildings and grounds for the activities of organizations and individuals such as civic club projects, entertainment events, trade shows, livestock events, picnics and other events that require buildings with large areas for their activities. To maintain all buildings and properties so that they are readily available and can be utilized to the maximum.

##### B. Statement of Means and Methods:

1. To periodically review the Program and make necessary changes that will reflect the progress and development of new ideas and ways exhibitors may be more effective in their presentations of programs.
2. Study present needs and future needs and plan for the development, growth, and expansion of present facilities.
3. Improve the present facilities.
4. Establish training programs for all employees to make them aware of safety, good public relations, improved work methods, new products available for their use, and equipment that must be properly used and maintained.
5. Review the Rules and Regulations governing the operations of the buildings and grounds.
6. Provide information regarding rental of buildings and grounds and a monthly schedule of events.
7. Assist promoters in setting up facilities to their specifications.
8. Publicize and promote the annual State Fair and advertise facilities that are here for the use of the public.

The Program is administered by the Manager of the Fair. He is responsible to the Commissioner of Agriculture and the Board of Agriculture in carrying out the program. The Administrative Staff consists of Manager, Assistant Manager, Administrative Officer, Budget Officer, and a Steno II. The maintenance of the buildings and grounds is supervised by a Plant Maintenance Supervisor I who has sixteen (16) permanent employees. The full staff at the present time is twenty two (22).





C. Brief History of the Program:

The North Carolina Agricultural Society founded the Fair. The first Fair was held in October 1853 on New Bern Avenue at what is now the Department of Motor Vehicles. It later moved across from what is now the North Carolina State University in 1873 and stayed there until it was moved to its present site in 1928. The North Carolina Agricultural Society disbanded, and the Fair was placed under the Department of Agriculture in 1930. There followed a period when the Fair was leased out to different organizations and groups, and finally returned to the North Carolina State Fair in 1937. The Fair is a Division of the Department of Agriculture, which is under the Commissioner of Agriculture and the Board of Agriculture for their approval prior to an enactment.

D. Statutory Authority:

GS 106-503; GS 106-520



## Agriculture

### Distribution of U. S. D. A. Donated Commodities Program

#### I. PROGRAM DEFINITION

##### A. Statement of Purpose:

This program seeks to expand markets and other outlets for farm products, especially those acquired by the U. S. Department of Agriculture under farm price support programs and to improve the health and nutrition of the people of the state through providing food supplies to more adequately meet their nutritional needs.

##### B. Statement of Means and Methods:

This program distributes U. S. D. A. donated foods to non-profit school lunchrooms, state hospitals, nutrition programs for elderly, youth rehabilitation schools, charitable institutions, non-profit child care centers, non-profit summer camps for children, supplemental food for mothers and preschool children. Eligibility for receiving food for this program is based on economical and nutritional needs.

The program is operated under a cooperative agreement between the U. S. Department of Agriculture and the North Carolina Department of Agriculture.

Administrative offices are maintained in Raleigh and leased warehouse facilities at Butner and Salisbury. Foods are received at the warehouses in freight carload lots where they are stored for subsequent shipment to schools and institutions on a monthly or bimonthly basis.

##### C. Brief History of the Program:

The Food Distribution Program began in the early 1930's and was operated by various state and federal authorities in its early years. The North Carolina Department of Agriculture first became involved in the administration of the program in 1944 at the direction of the Governor and mutual agreement of the Superintendent of the State Department of Public Instruction and the Commissioner of Agriculture. The Department of Agriculture operates the Food Distribution Program in cooperation with the U. S. Department of Agriculture. The Governor of North Carolina in November 1974, designated the N. C. Department of Agriculture to be responsible for the distribution of food commodities under Title VII Nutrition Program for the Elderly. This is scheduled to be a rapidly expanding program.





D. Statutory Authority

STATE - G.S. 143-64.5, Enacted 1953, Chapter 1262, Section 2, Session Laws.

FEDERAL - Section 416 of the Agricultural Act of 1949, as amended.

Section 210 of the Agricultural Act of 1956.

Section 32 of Public Law 320, 74th Congress, as amended.

Public Law 165, 75th Congress, as amended, which supplemented section 32.

Section 9 of the Act of September 6, 1958.

Section 6 of the National School Lunch Act, as amended.

Section 9 of the National School Lunch Act, as amended.

Section 402 of the Mutual Security Act of 1954, as amended.

Section 307 of the Agricultural Trade Development and Assistance Act of 1954, as amended.

Public Law 86-756, as amended.

Section 11 of the Disaster Relief Act of 1969.

Section 709 of the Food and Agriculture Act of 1965, as amended.

Section 13(h) (2) of the National School Lunch Act, as amended.

Section 8 of the Child Nutrition Act of 1966.

Section 707 of the Older Americans Act of 1965, as amended.









NORTH CAROLINA DEPARTMENT OF AGRICULTURE

1977-79 PROGRAM PLAN

RESPONSE TO TRENDS



North Carolina Department of Agriculture

Response to Trends

<u>Program</u>	<u>Page</u>
<u>Subprogram</u>	
Administration:	
General Administration	1-5
Administrative Services	-
Publications	6
Agricultural Services and Development :	
Markets	7-8
State Farmers Market	9
State Farm Operations	10-11
Agronomic Services	12-13
Federal-State Crop Reporting Service	14
Warehouse System Operations	15-16
N. C. Rural Rehabilitation Corporation	17
Consumer Protection:	
Analytical Administration	18
Commercial Feed and Pet Food	19
Food, Drugs, and Cosmetics	20-25
Plant Protection	26-28
Structural Pest	29-30
Pesticides	31-32
Animal Health	33-34
Meat and Poultry Inspection	35-36
Weights and Measures	37
Gasoline and Oil	38-39
Seed Testing	40-41
Commercial Fertilizer	42-43
Education and Research :	
Research Stations	44-45
Museum of Natural History	46-49
N. C. State Fair	50
Distribution of U.S.D.A. Donated Foods	51



1914

Volume 11

Number 1

CONTENTS

ORIGINAL ARTICLES

- 1. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 2. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 3. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 4. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 5. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 6. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 7. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 8. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 9. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 10. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus

DEPARTMENTS

- 11. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 12. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 13. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 14. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 15. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 16. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 17. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 18. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 19. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 20. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus

NOTES AND CORRESPONDENCE

- 21. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 22. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 23. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 24. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 25. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 26. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 27. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 28. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 29. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus
- 30. The Effect of the Diet on the Blood Sugar in Diabetes Mellitus

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## Agriculture

## General Administration Subprogram

## II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the enforcement of NCDA regulatory programs?

The proliferation of the legal community is increasing court challenges and the threat of challenges to NCDA rules and regulations and General Statutes under its jurisdiction. Citizens are becoming more and more inclined to challenge legal authority than in past years when legislative intent was looked upon as having a precedent in law. As a result, enforcement procedures and preparation of court cases are requiring more time and effort. Without this increased effort, cases are often lost on a technicality. With each such failure to convict, a certain amount of incentive is lost as well as a general deterioration of employee moral within the enforcement staff.

Further frustration is created by the attitude of district attorneys toward regulatory enforcement. With the increasing number of felonious offenses crowding court dockets, district attorneys are compelled to give regulatory enforcement cases minimum time.

2. How will these conditions and trends affect the NCDA regulatory programs?

Without thorough study and rewriting court judgements will no doubt declare many NCDA laws and regulations unconstitutional. Each such ruling will effectively stop the Department from meeting its responsibility. Citizens will become less responsive to the Departments legislated authority. As a further result, the court system will become apathetic to problems of the agricultural community. Eventually agricultural disease and pests will proliferate to the detriment of the states agricultural economy. As more time in enforcement matters is required of program administrators, less time will be available for proper program planning and supervision.

3. How will the Department of Agriculture respond to these conditions and trends?

To maintain the effectiveness of the Department's Consumer Services programs, we propose the addition of legally trained personnel to provide:

1. Review and redrafting of NCDA rules, regulations and pertinent laws.
2. Direct assistance to every level of regulatory enforcement, with emphasis on investigation and case preparation with district attorneys.



## Agriculture

### General Administration Subprogram

#### II. RESPONSE TO TRENDS

1. What are the trends in environmental legislation affecting agriculture in North Carolina?

The full implications of environmental legislation on agriculture are just beginning to come into focus. Resulting regulations tempered with court decisions have made it unmistakably clear that agriculture will be required to actively respond to this legislation. Specifically 208 of the Federal Water Pollution Control Act Amendments (P.L. 92-500) mandates a national program to address the abatement of pollution from nonpoint sources. Items considered as nonpoint sources of pollution include rainfall runoff from cropland, nitrates from fertilizers leaching to streams, sedimentation from agricultural land. Agriculture is one of eight categories specifically included in this legislation.

2. How will these trends affect agriculture in North Carolina?

The effects of the 208 programs on agriculture are unpredictable but the potential adverse impacts are staggering. The process outlined by the Environmental Protection Agency in the Code of Federal Regulations calls for the development of State Water Quality Management Plans November 1, 1978. At that time the plan becomes an enforcement document.

One of the most critical aspects of the 208 program centers around the development of Best Management Practices which must be included in the 208 plan. For example, it is possible that if a farmer had land in production in the proximity of a stream in which the water quality was already marginal, a very strict Best Management Practice might be specified for that crop. This could include measures such as requiring a reduction in the amount of fertilizer applied or a requirement for a buffer strip or treatment mechanism of some description. The important point is that the Best Management Practice specified may have adequate input from the North Carolina Department of Agriculture into the 208 Plan and the Best Management Practices specified therein in order to insure that the interest of North Carolina producers are considered.

3. How will the NCDA respond to these trends?

The North Carolina Department of Agriculture intends, to the extent resources are available, to:

1. Request additional personnel to specifically address this issue.
2. Establish a program to have active input into the development of the 208 planning process.
3. Provide information and assistance to the agricultural community concerning the 208 program.



## Agriculture

### General Administration Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the availability of productive acreage in North Carolina?

In recent years farmers who wish to keep their land in production have been under increasing pressure to convert all or a part of their acreage to alternative uses. Most of this pressure is generated from urban development in the form of land required for housing, highways, airports, power plants, solid waste disposal sites, shopping centers, etc. In a report to the President and the Council of Environmental Quality, the Citizen's Advisory Committee on Environmental Quality stated that the United States was losing 2.4 million acres of agricultural land, irreplaceably, per year. In North Carolina, this loss is estimated at almost 150,000 acres per year. The number of farms in North Carolina declined from 190,000 in 1959 to 125,000 for 1976. Although, offset to some extent by an increase in the average farm size, this represents a loss in the last 17 years of approximately 2.5 million acres. This takes on added significance when you consider this represents 19% of the 13.2 million acres now in farms in North Carolina. It is further augmented by the fact that agriculture is an important part of North Carolina's economy generating 2.7 billion dollars of farm cash receipts in 1975, ranking 10th in the United States.

2. How will these conditions and trends affect North Carolina's economy and quality of life?

Many of the direct effects and implications on North Carolina's economy and agriculture are obvious if this trend cannot be reversed or stabilized. Agriculture's contribution to the balance of payments at the state and national level are tremendously important. This contribution would be impossible without a productive land base.

An equally significant but less obvious effect of this trend deals with social, i.e. quality of life implications. The rural character and liveability of North Carolina has been possible in the past because of its agricultural base. If the productive land base is lost because of lack of foresight, the alternative for a balanced growth will be gone along with the rural character of the state.

3. How will the NCDA respond to these trends and conditions?

The North Carolina Department of Agriculture will respond to the above trends and conditions by:

1. Developing appropriate legislation to protect productive agricultural land.
2. Requesting additional personnel which will be required to administer such a program.

The legislation will include mechanisms which will allow producers who wish to continue in farming to do so by offering them some measure of protection from outside forces over which they have no control. These advantages will be balanced with appropriate obligations and responsibilities on their part.



## Agriculture

### Publications Subprogram

#### II. RESPONSE TO TRENDS

The activities of the information program of the department should remain very much the same during the next biennium.

Demands for information related to the numerous programs of the department change daily, but the over-all thrust of the program will remain unchanged.

## Agriculture

### Markets Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Markets Subprogram?
  - a. One of the most significant trends plaguing farmers today is the pressing cost-price squeeze in which they continue to find themselves. The constantly increasing costs they are having to pay for virtually all of their production needs (machinery, equipment, fertilizer, fuel, insecticides, pesticides, labor) while realizing little if any increases in prices for the commodities they sell is forcing additional farmers to cease operations and requiring the remaining ones to use every resource at their disposal. As a result, their requests for assistance, particularly in the area of marketing, are at an all-time high and there are numerous indications that such a trend will continue in the immediate years ahead.
  - b. Farmers and consumers alike are expressing increased interest in facilities being provided throughout the state to permit more direct marketing of farm products. Producers view this as a way of reducing marketing costs and thereby improving their profit margins. Consumers view it as a way of being able to buy fresher and better quality produce at less cost and in quantities they desire. While numerous community leaders and municipality officials are striving to provide such facilities, the Markets Subprogram is being relied on to assist in organizational plans, facility plans, operational procedures, etc. A few such facilities have already been constructed in the state including a regional Farmers Market, now under construction, in the Asheville area.
2. How will these conditions and trends affect the demands for services rendered by the Markets Subprogram?
  - a. Accomplishments in farm production during recent years have far outweighed those in marketing and farmers are now devoting more of their attention to this important facet of their operation--selling. They know if they fail to do an efficient job of marketing, many of their production efforts will have been in vain. Therefore, they are seeking guidance and assistance in marketing their products at an unequalled rate. Since the marketing system is so complex and is constantly undergoing changes, it is essential that farmers be kept appraised of these changes and of new techniques in order to better assure them of a reasonable margin of profit for their efforts.



As the only state agency rendering marketing service assistance, and as the only state agency authorized to release official market price and condition information on farm products and determine and certify the official grade on these products, the Markets Subprogram will be depended on heavily to provide these needs in the months and years ahead.

- b. It will be necessary for personnel in the Markets Subprogram, both commodity specialists and engineers, to devote more of their time and attention to assisting groups in the organization, structural layout, location and operation of community and regional farmers' markets. Once in operation, these facilities will need to be visited in order to assist management in operational practices and advise them on new techniques or ways to improve operations. Assistance is already being sought by existing markets to aid them in a variety of managerial practices and in conforming to Federal and State regulations applicable to such facilities.

3. How will the the Markets Subprogram respond to these conditions and trends?

- a. It will be the goal of the Markets Subprogram to maintain the key services it is now providing and develop new programs of service that will better assure farmers of receiving maximum prices for the products they sell. This will be done by cross-utilizing personnel and working more closely with other agencies to provide as much of a concerted approach as possible. To do this with maximum effectiveness, however, will necessitate additional clerical assistance and part-time market reporting assistance as outlined in "PLANS FOR THE BIENNIUM, Part B, Program Changes."
- b. A master-plan for community farmer markets will be developed, incorporating the most economical yet efficient features possible. Such a plan will be prepared for easy modification to meet special needs of a given locality. Existing personnel will be cross-utilized to provide maximum services as needed, where needed. The demands for such a facility are now being partially met as construction progresses on a Regional Farmers Market in Asheville that will serve numerous small farmers in the Western Carolina area. Previously appropriated funds will permit construction of only a small portion of the facilities planned for this market center. Therefore, additional funds will be needed for further construction and for operating costs until such times as the market can produce sufficient revenue to be self-supporting. These needs are outlined in "PLANS FOR THE BIENNIUM, Part B, Program Changes."



## Agriculture

### State Farmers Market Subprogram

#### II. RESPONSE TO TRENDS

1. What effect does the population growth of the Triangle area have on the market and what complications are created by the flood potential of the current market location?
  - a. Current projections on the population growth indicate that by the year 2000 there will be 750,000 people living in the Triangle area, Wake, Durham and Orange counties. That is an increase of 350,000 or almost a 100% increase over the present population. Over the past two years, patronage of the Market has increased considerably as a result of the growing demand for products. This demand is for more fruits and vegetables as well as more types of products. For instance, lawn and garden supplies have been in great demand through the center operating presently. In addition, the Market continues to receive requests for space to establish a seafood wholesale and retail outlet. With the Market experiencing a growing demand for services at the current rate of population increase, the accelerated population growth projected means an even greater demand in both quantity and types of products. In addition, population projections for the Triangle area take on added significant in view of the current trend in privately owned produce markets. Over the past years, many of the private markets within a radius of 150 miles of Raleigh have closed. With the closing of each such market, the demand on and importance of the State Farmers Market increases.
  - b. As outlined above, the State Farmers Market has and will continue to experience a growing demand from both producers and consumers. Because of the present location of the Market, no major construction can be planned. As a result of flooding on Crabtree Creek in February and June of 1973, the Market was placed under flood zone regulations, curtailing all future construction. Also, the extension of Six Forks Road from Wake Forest Road to North Blvd. is designated to go through the front part of the Market thus reducing already limited space and creating more traffic congestion. Due to the current restrictions on construction and the potential traffic problems created by planned street improvements, the Market cannot possibly expand and develop to meet the growing demand for space and facilities.
2. How will the State Farmers Market respond to these conditions and trends?

The key to providing the kind of service being requested for the Market is complete relocation of all facilities. Without the capability to expand and develop, the Market cannot possibly serve its purposes. A more spacious and less restrictive location would allow the Market to reach its potential as a truly viable governmental service.



## Agriculture

### State Farm Operations Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the State Farm Operations Subprogram?

The costs of the production for food for institutional use are expected to increase. The short and long term trends of agricultural production costs is to show annual increases. The production input cost include labor, fuel, machinery, herbicides, insecticides, seeds, electricity, motor vehicle operations, repairs to equipment (parts), and veterinarian supplies and drugs. The requirements to comply with the Occupational, Safety and Health Act will have a significant effect on farm operations and this costs. All of these cost will be reflected in the costs of producing food.

The demand for food by state institutions will be determined by the number of persons being cared for by state institutions. These numbers will reflect to some extent the policies of state government as expressed by the Legislature.

The state farms and particularly the large numbers of animals on state farms are used for research purposes by the N. C. State University. Ongoing research is being carried out in both the dairy herds and the beef herds. The milk from the dairy herds is processed by the university dairy plant, thus enabling the university to train students in dairy manufacturing as well as providing good quality milk products to the state institutions.

2. How will these conditions and trends affect the demands for services for the State Farm Operations Subprogram?

State institutions will continue to need a plentiful food supply of good quality. Such foods can best be assured by the operation of state farms to produce the needed food. The United States and world food supply appears to be undergoing a fundamental change. The reserve of surplus food and excess production capacity enjoyed during the past generation may now be a thing of the past. Today the excess stocks and production capacity of the past have disappeared. The entire world is living hand-to-mouth trying to make it from one harvest to the next. Prudence would indicate that the state should continue to produce food needed for those in its care with such production being accomplished in an efficient and economical manner.

The need for agricultural research and training of students becomes even more important and the state farms are an essential asset to the N. C. State University in accomplishing these goals.

3. How will the State Farm Operations Subprogram respond to these conditions and trends?

The program will respond to the needs and demands by planning for the production of the required food. Every effort will be made to operate

in an efficient and economical manner. Farm operations will be constantly monitored to assure that the latest and best techniques in farming are being followed and to assure that all enterprises are operating efficiently. Those changes which may be required by changing trends and policies will be effected promptly so as to demand.



## Agriculture

## Agronomic Services Subprogram

## II. RESPONSE TO TRENDS

## 1. What are the conditions and trends affecting the Agronomic Services Subprogram?

Some of the more important conditions and trends impacting the Agronomic Services subprogram are as follows:

- a. Production input cost (energy, equipment, labor, fertilizers, and pesticides) are increasing at a far faster rate than commodity price. Therefore, the farmers margin of profit is very thin and they realize that they must follow a complex program of soil testing, plant analysis, nematode assay, and other production practices. They also realize that a higher level of technical advice is necessary for them to implement these combination of practices, under their unique farm condition, in order to make a profit on their farm enterprise.
- b. In recent years there has been a strong trend in the fertilizer industry to higher analysis fertilizers, low in micronutrients such as copper and zinc as well as sulfur. Use of these fertilizers along with the necessity for higher yields have created the need for the above diagnostic tests in addition to the traditional diagnostic tests to detect deficiencies in order that corrective measures can be made to prevent crop yield loss.
- c. Tremendous quantities of waste in the form of animal manures, sewage sludge, processing plant waste, and industrial waste are generated in North Carolina each year. With the enforcement of water quality standards, the best alternative for disposal is on the land. Proper utilization of waste on lands will improve water quality as a result of decreased disposal into waters, and will improve air quality as a result of decreased incineration.

The trend towards greater utilization on the land is expected to increase. While this trend to greater utilization of waste on the land offers certain advantages, it also presents the following hazard. Waste is extremely heterogeneous and can contain very high levels of heavy metals which accumulate in the soil and can be toxic to growing plants and animals consuming the plants.

## 2. How will these conditions and trends affect the demands for diagnostic services and follow-up advice of the Agronomic Services Subprogram?

The net effect of these conditions and trends are that North Carolina citizens are using the Agronomic services at an unprecedented rate. They are also demanding that new diagnostic test (copper and zinc) be provided which are so important to modern-day high production agriculture. In addition, they are demanding that a higher level of technical advice be provided, through Regional Agronomist, to help them implement the combination of practices necessary for economic crop production, soil conservation and environmental quality. These conditions and trends are expected to continue to increase for some time.

3. How will the Agronomic Services Subprogram respond to these conditions and trends?

It is the desire of the Agronomic Services Subprogram to respond to these needs and demands by increasing our diagnostic test, and technical advice capability as outline in "PLANS FOR THE BIENNIUM, Part B. Program Changes."



## Federal-State Crop Reporting Service Program

## II. RESPONSE TO TRENDS

1. What agricultural trends in North Carolina are expected to affect the program of the Federal-State Crop and Livestock Reporting Service:
  - a. North Carolina farm numbers declined to 130,000 farms in 1975 from 301,000 farms in 1950, a drop of 57% in 25 years.
  - b. Many farms today are specialized and limit crop or livestock production to one or a few items. Prior to World War II, most farms were diversified with many crop and livestock enterprises.
  - c. Cash receipts or gross income from farming in North Carolina continues to increase hitting a record high of 2.7 billion in 1975, more than three times the 1950 farm income level.
  - d. Most farm production expenses have increased dramatically since 1950, especially during the 1970's for fuel and fertilizer.
  - e. Grain commodity markets are more erratic and volatile in recent years because of stronger but uneven international marketing and almost no government holdings.
  - f. Farm capital investment and operating money requirements continue to increase.
  - g. News of crop and livestock production have gained broad popularity during the past three years not only in the rural but also in the urban sector.
2. What program modifications should be made by our Division to respond positively to these trends?

The affect of these trends impact on our division in many ways. Reduced farm numbers plus farm specialization place new, more stringent demands on survey methodology. Stratified, multiple frame, and other sophisticated sampling designs and techniques will be used to properly represent the many specialized crop and livestock populations. Large scale computers are required and will be used for sample selection, data summary expansions, and evaluating quality of input data and estimates.

Because of the large amount of money required to enter or be in farming, in addition to increasing farm production expenditures and relatively erratic crop and livestock markets, farmers and others interested in agriculture have a stronger need for reliable and timely crop and livestock estimates than ever in order to make sharp intelligent production and marketing decisions. Our division must serve that important need to the fullest extent that budget will allow. With increased interest by government and the public in land use planning, farm production costs and environmental concerns, our program must be broadened to provide timely, unbiased additional information on land utilization, use of pesticides and herbicides, cost of production by type of enterprise and number of farms by size and location for use by various agriculturally oriented groups to assist in their studies and decisions in these complicated areas.



## Agriculture

### Warehouse System Operations Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Warehouse System Operations Subprogram?

The North Carolina Warehouse System program has been in operation since 1920. It is operated by the N. C. Department of Agriculture by authority of Article 38, Chapter 106 of the General Statutes of North Carolina as amended through 1967. This legislation was enacted by the General Assembly at the request of farmers, warehousemen, and other agricultural leaders in order to provide for more orderly marketing of agricultural products. From the enactment of the legislation until June 30, 1922, twenty-five cents per bale ginned was collected through the ginner and paid into the State Treasury to be held there as a special guarantee or indemnifying fund to safeguard the State Warehouse System against any loss not otherwise covered.

The phasing out of the North Carolina Warehouse System has been in process for the last several years. Because of the possibility of contingent liability associated with the major loss at a grain storage warehouse in Warsaw and the need to update the North Carolina Warehouse Law, the Commissioner and Board of Agriculture determined that it would be in the best interest to discontinue the System until the litigation had been finished and any needed new legislation enacted.

The Warehouse System has been operated almost from its inception under a cooperative agreement with the United States Warehouse Act whereby each system performed certain specific services for the local warehouses storing agricultural commodities. The phasing out of all warehouses licensed by the North Carolina Warehouse System was completed at the end of August 1975. With the exception of two or three small warehouses which decided to discontinue their warehouse business, all other warehouses transferred to the U. S. Department of Agriculture Warehouse Service Branch.

There are several thousand bales of cotton still remaining in warehouses formerly licensed by the North Carolina Warehouse System on which warehouse receipts have been issued by the State Warehouse System. We will continue to have the responsibility of guaranteeing to the receipt holder that his cotton is properly cared for until it is disposed of and the receipts cancelled. The need for continuing our system of record keeping on these receipts will continue until all cancelled receipts are received in this office. We expect this to take a few more years since some owners hold their cotton in storage for long periods of time before disposing of it.



2. How will these conditions and trends affect the demands for warehouse services and follow-up advice by the N. C. Department of Agriculture?

The net effect of these conditions and trends is that North Carolina storage facilities for agricultural commodities are now being licensed by the Federal Warehouse Service Branch or a private business concern set up for this purpose.

Until the litigation that the Warehouse System is now involved in is completed, it will be impossible to determine the full effect that the result of this problem will have on the future of the Warehouse System.

3. How will the Warehouse System Operations Subprogram respond to these conditions and trends?

It is the desire of the Commissioner and Board of Agriculture to respond to the needs and demands of the agricultural warehouse industry in North Carolina and to provide the best possible service for farmers and agribusinesses. There have been expressions of interest by some farmers and farm organizations that any needed legislation be obtained and that the North Carolina Warehouse System be continued if it is feasible to do so when the litigation is completed. In the meantime, personnel of the Warehouse System and the North Carolina Department of Agriculture continue to act in a liaison capacity between the Warehouse Service Branch headquartered in Atlanta, Georgia, and the many warehouses in North Carolina. Even though we are not actually involved in the licensing business, we do receive and answer inquiries from farmers and warehousemen concerning problems or information with which they need assistance. We plan to continue operating in this manner until we can determine more definitely what the future of the North Carolina Warehouse System should be.

## Agriculture

### N. C. Rural Rehabilitation Corporation Subprogram

#### II. RESPONSE TO TRENDS

Because the Corporation was originally established with federal funds, only federally approved applications of the funds are allowed. This condition of operation is the single most controlling factor on the Corporation. Under such an operating requirement the Corporation will continue to provide financial assistance to rural North Carolina through its current loan programs and policies.



## Agriculture

### Analytical Administration Subprogram

#### II. RESPONSE TO TRENDS

The Analytical Administration Subprogram functions as a planning and coordination group for the Food and Drug Protection Division programs. What are trends affecting this subprogram and what response can be made?

Increasing population means increased supplies of regulated commodities marketed to the public. Larger size and advanced technology within regulated industries creates need for more highly-trained inspectional personnel, capable of extensive records review as well as sanitation and economic capabilities. The Analytical Administration must assure these needs are met.

Budgetary and personnel limitations dictate that inspectors be as broadly-trained as possible, and that where possible territorial shifts, travel schedules, product sampling and inspector cross-utilization for varietal duties be implemented from the central office.

Consumer awareness has generated an increased interest in public desire for government agencies to follow up on food complaints. Additionally, a persistent high percentage of certain food processing and distribution firms operate on a marginal sanitation basis. Policies must be formulated to provide for consistent, fair and uniform treatment of repetitive situations of this sort.

Other persistent problem areas include retail advertising and marketing of foods, varying composition of retail ground beef, consistent terminology for retail meat cuts, and sanitation at salvage food dealers. These areas should be addressed as to potential formulation of regulations.

## Agriculture

### Commercial Animal Feed and Pet Food Subprogram

#### II. RESPONSE TO TRENDS

What trends are affecting the Commercial Feeds and Pet Foods Subprogram and what response may be made:

The manufacturing trend (presently estimated 80% of production or greater) in the commercial animal feed industry is toward bulk mixing and immediate shipment to users, employing conveyances (primarily truck) capable of handling multiton quantities of product. The inspection program of the Division has for many years been directed toward bagged feeds at agribusiness outlets. Recent study shows >95% of samples are of bag origin. Immediate shipment following manufacture makes it virtually impossible to intercede to sample the product. Means must be sought to correct this deficiency.

The majority of feed mills employ some form of animal drugs in one or more feeds. Lack of control over contamination of feed batches succeeding a feed containing medication can result in adverse effects on animals not intended to receive such medicants, or in harmful residues of the drug or its metabolites in animal products for human consumption (meat, milk, eggs). Determination of significant levels of such drugs in cross-contaminated feeds presents both analytical and regulatory problems. This problem must be addressed through development of more precise laboratory methodology and evaluation of precedents which may be established under the Commercial Feed Law and Food, Drug and Cosmetic Act so as to define points where regulatory action may be taken.

Feed industry management is aware that regulations are in effect for the handling of animal drugs in feed manufacturing facilities. They are frequently unaware how the regulations are to be translated into practical application. Educational efforts on the part of the Division must ensue in the interest of promoting the highest possible level of voluntary compliance.

Feed inspectors do not have at hand a current inventory of registered feeds. They are thus unable to ascertain without contact with the central office whether or not a feed is legally salable. Means should be provided for a current product inventory in the inspectors hands such that immediate stop sales may be placed on illegally-moving merchandise.



## Agriculture

## Food, Drug and Cosmetic Subprogram

## II. RESPONSE TO TRENDS

1. What are the trends in food safety and sanitation presently affecting the Food, Drug and Cosmetic Subprogram, and how must these trends be met?

- a. Increased consumer awareness has resulted in a sixfold higher number of food complaints to the Division in recent years:

	<u>71-72</u>	<u>72-73</u>	<u>73-74</u>	<u>74-75</u>	<u>75-76</u>
No. of complaints investigated	67	171	276	365	360

Each complaint must be investigated, followed up at retail and/or manufacturer level, and such actions as necessary taken to assure that the food supply remains safe and wholesome.

- b. Maintaining a current inventory of commercial food firms is virtually impossible in that there is no requirement for establishment registration prior to entering business. While food inspectors are responsible for maintaining this inventory as current as possible by notifying the Division office of such changes, they may not complete a cycle of their territory in less than three to six months, depending on workload. Firms may thus have entered or left business for months prior to knowledge by the Division inspector. Products distributed in the marketplace, for which a firm no longer exists to accept responsibility, may in the meantime, become unsafe for consumption. Conversely, firms may enter business under sanitary conditions not fit for production of safe, wholesome food.
- c. Production of low-acid canned foods by "community action program (CAP) canneries", which are most frequently funded by federal government economic opportunity agencies, ranks as a serious problem due to discovered equipment discrepancies and the severe lack of comprehension of the highly hazardous nature of manufacturing sterile foods by most operators. Such CAP canneries are most frequently non-profit, but make a service charge, thus bringing them under the purview of the State Food, Drug and Cosmetic Act. Certain commercial canneries also have sizable problems in this regard.
- d. An evaluation of 100 recently-performed inspections revealed an average of 21% of food firms with severe insanitation in the form of ingredient or product infestation by rodents, insects or birds. The findings further indicated that those areas concentrated upon by Division inspectional programs over the past three years, i.e. soft drink bottling plants, wholesale bakeries and food storage warehouses, reflect only 7%, 7% and 15% respectively of such gross



insanitation problems. Retail bakeries and corn meal mills are areas of immediate concern.

- e. Toxins associated with mold growth on improperly handled cereal grains can result in unsafe human foods made from such grains, as well as injury to animals consuming such grain in feed. Potentially harmful residues in animal-derived food products (milk, meat and eggs) can also result.

The Division must seek to combat such problems through (a) increased emphasis on training workshops for regulated groups; (b) counsel with management prior to initiation of business; (c) preclearance of plans and operational procedures; (d) more thorough inspections, particularly in the area of raw ingredient contamination ; (e) issuance of revocable inspection permits on an annual basis.

2. Lines of authority for food regulatory programs are split among various agencies of state and local governments. In what ways can the resources of the Food and Drug subprogram be more effectively utilized?

Study should be given to making a delineation of activities basically as follows: those food processing storage and handling activities which are of a retail nature and intracounty should be the responsibility of county government; those activities which distribute across county lines and are primarily of a wholesale nature should fall under state purview. Conflicting lines of authority among state and local health agencies are exhibited in the following table:

STATE AND LOCAL FOOD-RELATED  
REGULATORY INSPECTION PROGRAMS

	<u>State Department of Agriculture</u>	<u>State Division of Health Services</u>	<u>Local Departments of Health</u>
Bottled Water	Food & Drug Protection Division  GMP inspections	Sanitary Engineering Section  Approval of plans for protection and treatment of water supply	--
Retail meat markets	Food & Drug Protection Division  Sampling & inspection for labeling, compo- sition and adulteration only	Sanitary Engineering Section  Advisory to local health units	Sanitation inspection; grade rating; a few counties do some compo- sition analysis on ground meats

	<u>State Department of Agriculture</u>	<u>State Division of Health Services</u>	<u>Local Departments of Health</u>
Restaurants	Food & Drug Protection Division  Labeling, composition & adulteration only (infrequent)	Sanitary Engineering Section  Advisory to local health units	Sanitation inspection; grade rating
Market Milk *	Food & Drug Protection Division  Import permits for out- of-state milk shippers; butterfat checktesting for payment purposes; licensing of milk haulers and testers; sampling of multivitamin milk; clear- ance of product labeling; definitions & standards for all Grade A fluid milk products	Sanitary Engineering Section  Rating officers evaluate perfor- mance of local departments of health for purposes of Interstate Milk Shippers listing	Plant sanita- tion inspection on-the-farm inspection of producers
Wholesale Ice Cream Producers	Food & Drug Protection Division  Responsible for complete operation	--	--
Retail Soft Serve Dispensers	Food & Drug Protection Division	Sanitary Engineering Section  Review of building plans only	--
Shellfish Processors	*	Sanitary Engineering Section  Complete responsi- bility under Shell- fish Sanitation Laws; Shellfish Unit located at Morehead City	--

\*By agreement with Division of Health Services, NCDA does not enter these establishments for purposes of sanitation inspections.



	State Department of Agriculture	State Division of Health Services	Local Departments of Health
Finfish Processors	Food & Drug Protection Division  Responsible for complete operation	--	--
Apples and Eggs	Markets Division - Controlled through Federal-State Cooperative Grading and regulatory program	--	--
General whole-sale food processing and storage	Food & Drug Protection Division	--	--
Wholesale Meat and Poultry Inspections	State Meat & Poultry Inspection Service - Animal Health Division  Ante and post-mortem inspections; sanitation	--	Quarterly checks; grade rating (A, B, or C); three counties have agreement with NCDA to handle packing plants

The most striking example of state-local government regulatory duplicity involves: (1) retail restaurants with soft serve ice cream and/or milk shake dispensing equipment, and (2) wholesale fluid milk processing plants. Approximately 40% of the senior level NCDA food inspector resources have in previous years been expended in checking equipment at retail soft serve ice cream and milk shake dispensing establishments. The overwhelming percentage of these establishments also qualify as restaurants and are inspected and graded by local sanitarians.

Similarly, local health departments and NCDA inspectors enter wholesale dairy operations which process fluid milk and ice cream products. The number of these plants is decreasing in number and none distributes strictly within a single county. While NCDA laws provide authority for surveillance of both type wholesale facilities, local health authorities have traditionally assumed complete sanitary inspection control of fluid milk facilities and dairy farm inspections through the Interstate Milk Shippers program.



While assuming complete regulatory authority over ice cream manufacturing plants, NCDA yet must enter the fluid milk plants under requirement of the Babcock Test Law and the Food, Drug and Cosmetic Act to: (a) check accuracy of butterfat testing for proper payments to farmers for their fluid milk; (b) train, examine and license milk haulers, weighers and testers to perform their tests correctly; and (c) clear product labels. The aforementioned activities cannot be handled by local health departments since they lack statutory authority.

3. Dependable analytical results are the backbone of Departmental consumer protection programs in food, feed, fertilizer, pesticides, drugs and antifreezes. Economic penalties are prescribed in several laws for feed, fertilizer and pesticide products not matching guarantees. Adulterated or misbranded foods, drugs, feeds and antifreezes may be removed from channels of commerce. What industrial trends are affecting laboratory performance and what assistance may be rendered toward continuing the issuance of high quality laboratory results?

Some factors affecting the testing of products under Departmental regulatory control include:

- (a) Changing methodology in manufacture of fertilizer toward products with higher nutrient content; (b) rapid movement of fertilizer in commercial channels during spring and fall seasons; (c) introduction of newer combinations of drugs into animal feeds; (d) problems of mold toxins in cereal grain products; (e) difficulty in obtaining standards for comparison assay of commercial pesticides.

These factors dictate the use of mechanical instrumentation where possible for more rapid generation of data, as well as the acquisition of certain precision instrumentation which assists in assay of trace components which appear in the range of parts per million or parts per billion parts of product.

To avoid the legal burden of having to personally develop methods and prove their veracity for purposes of enforcing the laws, NCDA must continue to support methods development efforts of the Association of Official Analytical Chemists, an organization of worldwide laboratory personnel who are involved with agriculturally-oriented product analysis. This organization conducts referee and collaborative laboratory investigations of proposed analytical methodology, accepting statistically accurate and precise methods for incorporating into the official methods of analysis handbook. Such methods are accepted by courts of law as having been authenticated.

4. What are the problems of food quality experienced by county health departments and where may the NCDA assist?

Local boards of health bear responsibility for sanitation quality in meat markets and other retail outlets (i.e. certain sandwich and salad manufacturers). Facility inspections involve visual observation of abnormalities. As these local units have restricted capacity for microbiological assay, they are, with few exceptions, unable to make swab tests of processing equipment or sample the final products for such



assay. Microbiological testing capability can rapidly lead to hidden sanitation problems resulting from use of poor quality ingredients, improper cleaning and sanitizing of equipment, poor refrigeration, or poor employee habits.

The state should have the capacity to assist the local health unit where such problems exist, by generating proper microbiological data to supplement visible inspectional findings.

5. What authority exists for control within the State of North Carolina of labeling, composition, packaging and conditions of sale of such diverse and potentially-hazardous products as household drain cleaners, furniture polishes, paints, solvents, toys, fireworks and electrical appliances?

Presently the only statute dealing with this general area is the Labeling of Household Cleaners Law (Ch. 66, Article 88). No further control is exercised. Deaths and injuries in North Carolina in recent years indicate a need for a broadly-based law to cover a wide range of consumer products presenting potential hazards to the public. Drain cleaners made from concentrated sulfuric acid (totally unsuitable for such a product due to its highly reactive nature toward water and metal piping), microbiologically-contaminated cosmetic items designed for children's usage at Halloween, lead-leaching glazes on domestically-produced pottery, and mistaken consumption of methyl alcohol-containing "canned heat" by derelict alcoholics are among incidents investigated by this Department, the Attorney General and the Department of Human Resources, within the past three years.

The Division will be prepared to introduce a Product Safety Bill into the 1977 General Assembly. The Bill will provide authority for requiring label statements for protection of the public, and extend control ultimately to the temporary or permanent banning of those products which cannot be labeled, packaged, or sold under such conditions as to render them safe for their intended use.



## Agriculture

### Plant Protection and Biological Asset Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Plant Protection and Biological Asset Subprogram?
  - a. Population increases throughout the world have placed greater emphasis on the production of food, fiber and other farm commodities. Farmers in North Carolina are placing more land in production and farming each acre more intensely. North Carolina agricultural commodities are being sold and bartered in world and national trade at a tremendously expanded rate with a corresponding increase in importation of materials used in agriculture. These developments have created a much more mobile environment for plant pests. This will result in a greatly increased pest risk or load. People are more aware than at any time in history that green plants play a major role in contributing to environmental quality. This awareness and corresponding increases in leisure time has led to what has been coined, "a developing green revolution". Increases in all aspects of plant production, plant importation and germ plasm development are occurring. For example, the foliage plant industry in the United States has experienced a thirty-two percent growth in the last two years. These factors are also contributing to the increasing pest risk load by creating a more mobile environment for plant pests.
  - b. National and international attention has been focused on the environment, its preservation and enhancement. Every element that affects our environment is under examination to determine what role it plays. There is a greatly expanding technology in the biological sciences as a result of these factors. Programs requiring insect taxonomic survey, biological and identification assistance are increasing such as in preparation of environmental impact statements, air and water pollution studies, endangered and threatened species legislation and land use management decisions. There has been a tremendous proliferation of environmental and health related legislation dealing with every aspect of our lives. There is an increasing need to present facts and correct information with regard to pest control and biological programs in order that objective decisions can be made in dealing with environmental problems. Public participation in the decision-making process dealing with environmental issues continues to increase. As a result of segments of this new legislation, there has been a loss of chemicals regarded as standard pest control treatments in agriculture. These developments created an immediate need for



alternate pest control methods such as narrow spectrum pesticides, biological control and pest management programs.

- c. Increased crop production along with increased costs of production are leading to more prudent decision making in farming operations. Additional emphasis is being placed on pest control and pest control decisions. To maximize yields with changing production practices, greater emphasis has to be placed on pest control. In these situations pest complexes undergo change; what were minor pests can develop into major pests. Introduced pests have new opportunities to establish; problems with pesticide resistance develop. More attention is being devoted to weed control because it is a marginal factor that is developing into a major production decision area. More exacting information must be available for pest control decisions; accurate diagnosis of problems is essential. Exclusion of pests, prevention of spread and elimination of existing pests when feasible are of prime importance. There will be an increased demand for new and more sophisticated pest control strategies and techniques.
- d. The bee and honey industry in North Carolina is growing as more individuals, home gardeners, etc., realize the need for honeybees in their gardens and orchards. The commercial beekeeping industry is growing in North Carolina with a greatly increased movement of bees from other states into and from North Carolina. This has resulted in a greatly increased danger of bringing new bee diseases into the state. Honeybee kills as a result of pesticide poisonings are increasing. The recent energy-cost crunch has created numerous problems for the beekeeper such as competition from imitation honeys, honeybee thefts, and greatly increased operational costs without a corresponding increase in prices received for honey. Land clearing, spraying with pesticides, and the increasing population is causing a serious loss of our wild beneficial insect populations which have an important role in the natural control of pests and are necessary for pollination of many of our crops and native plants. In many cases farmers are getting on a pesticide tread mill where they are spraying for pests that were once controlled by natural factors. The shortage of native pollinating insects is increasing the demand for honeybees as pollinators in our apple, blueberry, cucumber, home garden, and other crops.

2. How will these conditions and trends affect the demands for services of the Plant Protection and Biological Asset Subprogram?

These conditions and trends will necessitate that the level, quality and quantity of services delivered by this subprogram be increased and strengthened. We will see additional pressure from

imported pests and pests from other parts of the United States which will necessitate increased survey, detection and control activity. The environmentally related trends will result in increased demands on the resources of the division for biological, taxonomic, and ecological services and activities. Certification of farm commodities and related items for export will continue to increase.

The regulation of weed pests, cooperation in the development of alternative pest control methods, and monitoring of pest management and integrated control activities will be of increased importance as farm activities grow at unprecedented rates. The division will be expected to cooperate in eradication and environmental enhancement programs made possible by technological advancements. These will suppress farm production cost increases and provide long-range environmental quality.

There will be an increased demand from beekeepers for inspection, disease and poison diagnosis, and other honeybee related services. There will be an urgent need for increased regulatory activity to prevent the introduction of a new bee disease and the reintroduction of certain bee diseases into North Carolina. There will be increased demand for identifications, control recommendations, and other pest control information from our increasing suburban population.

3. How will the Plant Protection and Biological Asset Subprogram respond to these conditions and trends?

It is the desire of the Plant Protection and Biological Asset Subprogram to respond to these trends by increasing our capabilities and services as outlined in "PLANS FOR THE BIENNium, Part B. Program Changes."



## Agriculture

### Structural Pest Services Subprogram

#### II. RESPONSE TO TRENDS

1. What are the trends and issues affecting the Structural Pest Services Subprogram?
  - a. During the past decade the unprecedented rate of urbanization and the continual encroachment of housing on suburban and farm lands have intensified structural pest control problems. Man's increasing affluence and mobility have expanded the scope of structural pest control problems.
  - b. The homeowner's inability to cope with the complexity and magnitude of structural pest control problems and to bring about a reduction in the density of destructive pest populations in and around his home have generated an increased interest in and a greater demand for structural pest control services by the professional operator. There has been a trend by the homeowner, in recent years, to demand and expect a greater quantity and a higher quality of structural pest control services for each dollar spent.
  - c. The trend toward greater consumer protection has resulted in an increase in regulatory legislation. Recent statutory restrictions on pesticide usage have made industry keenly aware of the need for innovations in structural pest control methods and procedures. These restrictions have also focused on the need for the development and maintenance of additional training and testing programs for service personnel to ensure competency in the handling of pesticides.
2. How will these trends and issues influence the operations of the Structural Pest Services Subprogram?

These trends and issues have resulted in an alarming increase in consumer demands for structural pest control services. Consumers are also demanding closer surveillance and more critical evaluation of industry's service materials and techniques. In addition they are demanding more technical advice to aid them in the selection of the most economical and effective industry services. These trends and issues are expected to continue indefinitely.

3. How will the Structural Pest Services Subprogram react to these trends and issues?

In order to meet the consumer's demands and needs, the Structural Pest Services Subprogram will be required to increase its quantity and quality of services as outlined in "PLANS FOR THE BIENNIUM, PART B".



## Agriculture

## Pesticide Subprogram

## II. RESPONSE TO TRENDS

## 1. What are the conditions and trends affecting the Pesticide Subprogram?

- a. There is an increasing concern among the general public over potential adverse effects to man and his environment from pesticides as a result of publicity concerning accidents and disasters involving pesticides and incidents such as recently reported in Hopewell, Virginia, which involved widespread adverse contamination of the environment, workers in the plant, and residents of the community.

In addition, actions taken by the Environmental Protection Agency and the Food and Drug Administration within the past year regarding potential carcinogenicity of many compounds including pesticides used within our society has increased public awareness and concern.

- b. The cost of agricultural production has increased considerably compared to the profits realized by the farmer for his commodities. In that his profit margin is low, he is seeking additional services involving analysis of pesticides and analysis of soils for pesticide residues from the previous crop.
- c. The adoption of the Federal Environmental Pesticide Control Act of 1972 and supporting state legislation is demanding that individuals (commercial applicators and farmers) who use Restricted-Use Pesticides demonstrate their competency to use these materials. Restricted-Use Pesticides are those that due to their persistence, toxicity, or otherwise are so hazardous or injurious to man or can produce adverse effects within the environment that additional restrictions are necessary.

## 2. How will these conditions and trends affect the demands for Pesticide Subprogram services?

These conditions and trends will result in increased requests for information regarding all aspects of pesticides including their proper uses, data required for registration, proper disposal, sale, detrimental effects, requirement of Federal Law, etc. This, plus review of significantly increased additional data required of pesticide manufacturers to support applications for registration of pesticides and minor use registrations will overburden the present staff.

In addition, the conditions have prompted the establishment of a properly trained and equipped Emergency Pesticide Reaction Team which has available the manpower and equipment to cope with emergencies or disasters involving pesticides that potentially could have a tremendous adverse affect on man and his environment.



The Federal and State requirements to train and certify as competent all commercial and private applicators (farmers) who use Restricted-Use Pesticides will affect the program more than any other condition or trend. This subprogram has been designated by the Department and EPA as responsible for certification of an estimated 80,000 farmers. If adequate federal funds are not made available, the objectives cannot be realized without State Support.

3. How will the Pesticide Subprogram respond to these conditions and trends?

It is our desire to respond to the conditions and trends as outlined in "Plans For The Biennium, Part B. Program Changes."

## Agriculture

## Animal Health Subprogram

## II. RESPONSE TO TRENDS

## 1. What are the conditions and trends affecting the Animal Health Subprogram:

- a. The cost factors in producing livestock (feed, transportation, land, labor, buildings, equipment, taxes, pollution, control, etc.) are increasing at a more rapid rate than the prices received for livestock and poultry. Profit margins have decreased. Relatively light losses from animal diseases can result in a livestock or poultry operation becoming unprofitable. Heavy disease losses may force discontinuance of a livestock or poultry operation. The spread of a foreign animal disease such as foot and mouth disease or Asiatic Newcastle Disease within the state could be catastrophic for the entire industry. Producers recognize the fact that diseases must be prevented or controlled if they are to remain competitive.
- b. Several hundred of the diseases which affect animals also cause human health problems. With increasing concentrations of livestock and poultry in North Carolina and the continuing emphasis on protecting human health, the control of animal diseases assumes a new importance.
- c. Recent actions by the Federal Drug Administration to prevent the occurrence of chemical residues in meat and milk products have made it impossible to follow the "shotgun approach" in the treatment of food animal diseases. Treatments must now be specific and recommended times for withdrawal of medications must be observed. A prompt accurate diagnosis of animal diseases is necessary.
- d. Most livestock and poultry disease control and eradication programs are conducted cooperatively by the State and United States Departments of Agriculture. During the past several years a trend for the USDA to withdraw from active participation in State-Federal programs has developed. The USDA is becoming an undependable ally in animal disease control.

## 2. How will these conditions and trends affect demands for the services of the Animal Health Subprogram?

The prevailing conditions and trends within the livestock and poultry industry have resulted in demands for rapid identification of animal disease problems so that specific actions for treatment and prevention can be taken. The animal disease diagnostic laboratories have been asked to perform more sophisticated laboratory tests related to identifying animal diseases, as well as mass screening tests such as bacteriological culturing of milk samples to identify the causative agents of mastitis in cattle, and the microscopic examination of pig feces to identify worm eggs so that proper treatments can be given.



The increased movement of animals through assembly points such as livestock markets to make for more efficient grading and marketing has placed more responsibility on the Department's veterinarians and livestock inspectors in preventing the dissemination of diseases resulting from intermingling of livestock from many sources.

Reorganization of the U. S. Department of Agriculture's Veterinary Services has made it more difficult to fulfill our responsibilities to the livestock and poultry industries in the area of disease control. Removing personnel from the State for various periods, often with little or no notice, has necessitated the assignment of State personnel on short notice to perform their duties, or to leave necessary work undone.

3. How will the Animal Health Subprogram respond to these conditions and Trends?

The Animal Health Subprogram will respond to these needs and trends by improving our facilities for diagnosing animal diseases and reorganizing our field veterinarians, livestock inspectors and poultry specialists to better provide the services required by the livestock and poultry industries. These changes are outlined in "PLANS FOR THE BIENNIUM", Part B. Program Changes.



## Agriculture

## Meat and Poultry Inspection Subprogram

## II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Meat and Poultry Inspection Subprogram?
  - a. Meat and Poultry Inspection is carried out on a 50-50 cost-sharing basis with the Federal Government. The state has the option of allowing the Federal Government to take over the program completely at a savings in funds of 1.2 million dollars annually. Should the state continue to share the cost of this program?
  - b. Animals may harbor residues of chemicals such as insecticides and fungicides from eating contaminated feed or grazing on contaminated land. A residue monitoring program is necessary to prevent to the extent possible meats from contaminated animals from entering the state and nation's food supply.
  - c. Consumer groups as well as various government agencies have shown much interest in establishing bacteriological standards for various comminuted meats such as ground beef, fresh sausage, cooked sausage, and various ready to eat meat products. The question is should these standards be established and regulations promulgated for enforcement of these standards.
2. Based on the experience of those administering the State Meat and Poultry Inspection Program, the following responses are made concerning these conditions and trends.
  - a. In the opinion of this subprogram manager, the State of North Carolina should continue to operate the State Meat and Poultry Inspection Program. The North Carolina Meat Packers Association at its 1976 winter meeting expressed their desire to keep the State Meat and Poultry Inspection Program. The general feeling was that inspection matters are more easily solved at the local and state level. State officials are more sympathetic and understanding toward the operation of the industry in North Carolina and evaluate inspection problems from a local viewpoint rather than a general standardized national view. Since they operate wholly within the state, they do not feel that they should be forced to accept Federal inspection unless they wish to sell their products in interstate commerce.

Turning the State Meat and Poultry Inspection Program over to the Federal Government will not save the taxpayer anything. It is generally agreed that the take over of state meat and poultry inspection programs by the Federal Government has resulted in a thirty percent higher cost to the people. The trend to turn over state programs to the Federal Government is not unique to meat and poultry inspection, but is a national trend in other programs as well. The question is should this trend continue or should states insist on running their own affairs to the extent possible despite the pressures of Federal Laws and monetary problems to do otherwise.

- b. State Meat and Poultry Inspection now participates in the State-Federal Residue Monitoring Program. State slaughter plants have been programmed into the computer in Washington along with Federal plants. State plants will have an equal chance with Federal plants to be picked for sampling for residue determinations. This program is designed to reduce drastically the number of samples a state would have to take in order to be statistically accurate were it to operate an independent program. The cost of the program will not significantly affect the budget.
- c. Standards have not as yet been arrived at for comminuted meat products. There is general disagreement on what these standards for bacterial counts per gram should be. There is little doubt that agreement will eventually be reached between government, industry and consumer groups, probably in about five years. State meat inspection officials should continue to be advised of the developments in this field and continue to have a part in the development of these standards.



## Agriculture

## Weights and Measures Subprogram

## II. RESPONSE TO TRENDS

## 1. What are the conditions and trends affecting the Weights and Measures Subprogram?

Some of the more important conditions and trends affecting the Weights and Measures Subprogram are as follows:

- a. In order to reduce merchandising costs the selling industry is continuing the trend to more automated electronic weighing and measuring systems. System users are requesting more frequent inspection schedules because of the business volume increase made possible by these weighing and measuring systems.
- b. Interstate merchandising continues to expand. Present day commodity distribution capabilities have made this possible.
- c. Environmental concern in connection with the distribution of petroleum products is growing. Terminal distribution points and vehicle transports are being modified for the receipt and discharge of petroleum products through a closed circuit fill and discharge system to prevent the escape of vapor to the atmosphere. The change in gross weight allowance of vehicles provides for larger transport capacities.
- d. Metrology assistance requests from industry continue to expand. The passage of the voluntary metric conversion act is also increasing the demand for technical assistance to industry.
- e. The annual production of beef cattle is increasing at a rapid pace. This production increase and the demand for quality feeder stock is bringing about changing feeding procedures during the period when pasture grass is dormant. For continued cattle weight gain there is an increase in the use of liquid feed supplements rich in the nutrients needed by cattle.
- f. There is an increase in the number of custom slaughtering houses in the state taking place. These slaughtering houses are operating on a fee per pound basis.

## 2. How will these conditions and trends affect the demands for the services of the Weights and Measures Subprogram?

The effects of these conditions and trends are that the citizens of North Carolina are using the Weights and Measures services at an increasing rate. New needs are arising which are sponsored by changing merchandising methods; by environmental concerns; and by new production methods.

## 3. How will the Weights and Measures Subprogram respond to these trends?

It is the desire of the Weights and Measures Subprogram to respond to these influences and trends by increasing our inspection and test capabilities; by making emphasis adjustments; and by altering the program as outlined in "Plans for the Biennium, Part B Program Changes."



## Agriculture

## Gasoline and Oil Subprogram

## II. RESPONSE TO TRENDS

1. What are the most important influences and trends affecting the Gasoline and Oil Subprogram?
  - a. The use of diesel fuels is increasing steadily, and all indications are that this trend will continue. The economics of vehicular travel have increased the search for internal combustion engines that will extract the greatest amount of usable power per unit of fuel. The diesel engine has therefore become increasingly more desirable. A diesel engine makes sparing use of a relatively cheap fuel, has long life, and requires a relative absence of maintenance in comparison with gasoline powered engines. While the emphasis on the use of diesel engines will continue to be in heavy duty applications, technological advances have reduced inherent noise and emission problems to the point where diesel powered automobiles are in fairly widespread use, and a steady increase in such use is expected to continue.
  - b. The pollutants which are generated from petroleum usage have caused environmentalists great concern. These pollutants come primarily from two sources, namely; evaporative loss of unburned products into the atmosphere, and products of combustion from engine exhausts. Pollutants from the latter contain oxides of lead, nitrogen, sulphur, and carbon as well as unburned hydrocarbons. The loading procedures at petroleum terminals is being modified to reduce evaporation loss. Vehicles which transport products from the terminal to distribution points are being modified to prevent evaporation during transit and during the unloading process. Environmentalists consider petroleum products a major source of air pollution, and this problem becomes more acute with any increase in population density.
  - c. Increases in the cost of petroleum products are expected. Since the United States is not able at the present time to produce enough petroleum for its needs, vast quantities must be imported from other countries. Generally speaking, the additional needs of the United States are available only from countries that are in the process of rapid development, and are therefore badly in need of capital. Other industrialized countries also need additional petroleum, thereby causing the price to rise. Even if new and adequate sources are found in the United States, such deposits would be found in inaccessible places where the cost of exploration and production will be high.
  - d. A different and more precise method of expressing the anti-knock quality of gasoline known as the "Octane Index Method" has been developed. Most states, including North Carolina, have for many years used the A.S.T.M. Research Method for determining octane rating in regulatory programs. Most scientists in this field agree that this method is satisfactory for ratings under conditions of low load and low engine speeds but has limitations under other conditions. Conversely, the A.S.T.M. Motor Method is considered to give satisfactory ratings under conditions of high load and high engine speeds, but also has limitations under other



conditions. After many years of research, it has been found that the Octane Index Method, which is a combination of the two basic methods, is more satisfactory in correlating laboratory ratings with actual average road performance than either of the other two methods used alone. Many regulatory agencies have adopted this method and most refiners of gasoline state the octane index in their list of quality specifications.

- e. Recent anti-trust decisions concerning the operation of retail service stations will have the effect of reversing the trend of many major refiners controlling the production, handling, and sale of motor fuels from the oil field to the ultimate consumer. North Carolina already has a large percentage of independent dealers, and this percentage is expected to increase.
  - f. The use of L.P. Gas is increasing rapidly. There is a shortage of natural gas available in North Carolina. This shortage together with the normal L.P. Gas demand growth pattern caused by population expansion and industrial growth has caused a shortage of L.P. Gas with a corresponding per unit price increases. An increase in the construction of storage facilities for L.P. Gas is taking place. An increase in the use of L.P. Gas for tobacco curing and grain drying is continuing.
2. How will these influences and trends affect the Gasoline and Oil Subprogram?
- a. The general effect of the influences and trends is that they increase the need for the program to continue. They indicate that some new elements need to be added to the program along with some emphasis adjustments.
3. How will the Gasoline and Oil Subprogram respond to these influences and trends?
- a. Our desire is for the Gasoline and Oil Subprogram to respond to the needs by using labor saving techniques to increase the number of inspections; by identifying and inspecting diesel fuels; by altering the analytical program to take into account the quality specification changes that have taken place in motor fuels, and to expand our L.P. Gas inspection capabilities.

## Agriculture

## Seed Testing Subprogram

## II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Seed Subprogram?
  - a. More precise analytical techniques for evaluating seed viability are past developmental stage. Agreement on procedures, which include refined measurement by cold tests, seedling classification, biochemical, accelerated aging and gaseous exchange are now being complied by the Association of Official Seed Analysts. Upon final approval, these methods will be incorporated into seed quality measurements in the laboratories across the country.
  - b. Emphasis on home gardening is growing rapidly resulting in the movement of larger quantities of vegetable seeds into North Carolina. Vegetable seed inspection and testing comes within the mandate of the North Carolina Seed Law and the Seed Testing Laboratory functions. Both the quantity and importance of vegetable seeds in market channels is growing rapidly.
  - c. Seed samples from the Seed Certification Program are increasing in number annually. This is due to the continual increase in the percentage of certified seeds making up the market inventory of self pollinated crops species. Under the Plant Variety Protection Act, passed in 1973, the market on soybeans, peanuts, cotton, wheat, oats, and barley will approach 100% certified seeds. The NCDA Seed Testing Laboratory will continue to receive increasing numbers of certified seed samples.
2. How will these trends affect the Seed Subprogram?

Sample numbers are expected to increase. In the past three years, total sample numbers have increased from approximately 25,000 samples to more than 30,000 samples. This has put considerable stress on personnel, equipment and supplies.

The increased emphasis on vegetable seeds will require more surveillance of these seeds than has been provided in the past. Previously, the relative economic importance of field crop seeds have dictated an emphasis on that class of seeds and this will probably continue to some degree.

The most important affect of trends will relate to greater precision in seed quality evaluations, especially in the adoption of analytical procedures that will more effectively estimate the germination quality of seeds.



3. How will the Seed subprogram respond to these conditions and trends?

No major change in this subprogram are anticipated. However, because of the need to provide accurate seed tests, periodic updating of equipment and testing methodology will be required.

## Agriculture

## Commercial Fertilizer Subprogram

## II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Fertilizer Subprogram?
  - a. The fertilizer industry is shifting in its primary product supply from granulating plants to bulk blend plants. Technically, granulating plants involve the production of sulphuric acid with which to treat phosphate rock, making superphosphate or triple superphosphate. The phosphate materials are then ammoniated. This combines the nitrogen and phosphate components, plus sulphur, which is then added to muriate of potash, or sulphate of potash. The product is then a "green" fertilizer which must be cured and granulated for satisfactory handling. From this source fertilizer is bagged and shipped to distribution points.

In blending plants, different components of supply materials, all solid, are simply mixed together. The materials are principally di-ammonium phosphate, muriate of potash, sulphate of potash, urea, ammonium nitrate, and several other possible components. The component materials are loaded into a large mixer for physical blending, bagged out and shipped. For local trade, the blended material may be sold and spread from bulk, which bypasses the bagging operation.

The blending plants are more easily operated in compliance with EPA requirements, more flexible in producing grades of fertilizer in demand and are dispersed more uniformly into the use area, which reduces the long hauls of granulated products.

- b. Also increasing are the liquid fertilizer solution plants which combine liquid components into the desired grades of fertilizer. These are often applied on a custom basis within a convenient radius, or supplied to farmers bulk liquid tanks for application by the farmers equipment.
    - c. The use of micro-nutrients is increasing rapidly, and most companies offer fertilizer materials with micro-nutrients as a premium grade of fertilizer.
    - d. The historical "approved grade list" seems to have outlived its usefulness, and will probably be discontinued in 1977. The primary purpose for discontinuing the approved grade list is due to advances in soil testing and recommendations of fertilizer grades which can be custom mixed for very specific soil and crop requirements. Farmers, research workers and industry representatives are mostly in accord that the grade list serves little useful purpose in today's agricultural needs. The



discontinuation of such a grade list will result in a large number of grades made and offered to farmers.

- e. In response to public interest in the use of organic materials for gardening and landscaping, quite a number of specialty and organic products are being introduced each year. This, too, adds to the number of products for which surveillance and inspections are needed.
- f. North Carolina has historically used less lime than is needed for agricultural crops. Most lime used has been transported from other states. Currently, three calcitic lime (marl) mines are in operation, two others are preparing to open, and one limestone quarry is preparing to operate in the western part of the state.
- g. There is an avalanche of new products, especially in the nature of soil conditioners and dilute trace element materials that have little, if any, chance to improve plant growth or improve production efficiency. Many such products are coming on the market without required registration, and must be searched out before NCDA is aware they are being offered. There is thus a need for increased surveillance for such non-registered products.

2. How will these conditions and trends affect the demands of the Fertilizer Subprogram?

Each of the changes noted are resulting in a greater number of products being offered to North Carolina consumers of fertilizer and lime products. In the case of expanding blend plants, each sample will represent less tonnage of product than when drawn from larger lots of granulated products.

The net result is for a need of larger numbers of samples, of more kinds of products, just to keep up to the same general level of surveillance of the products being provided to North Carolina fertilizer and lime consumers.

3. How will the Fertilizer subprogram respond to these conditions and trends?

In response to the trends outlined, it will be necessary to update laboratory equipment to meet the new product analyses, and to supplement and reorder the manpower resources to provide necessary surveillance and sampling of the more varied and numerous products.



## Agriculture

## Division of Research Stations Subprograms

## II. RESPONSE TO TRENDS

## 1. What are the conditions and trends affecting the Division of Research Stations Subprograms?

The expanding world population is greatly increasing the world requirements of food and fiber. This fact, along with economic forces and changing technology has created an unprecedented demand on agricultural research scientist throughout the nation and world. This situation is having a profound affect on the efforts of the scientist at N. C. State University which in turn directly affect the responses of this Division.

Some specific conditions are as follows:

- a. In 1966 the number of Grade A milk producers in this state were 2710, producing an average daily quantity of 1236 pounds each. In 1975 the number of Grade A producers had decreased to 1536, producing a daily average of 2350 pounds each. This represents a 43% reduction in dairy units, at the same time increasing the total production by approximately 12%. The trend toward fewer but larger and more efficient dairy units in North Carolina and the nation make it essential for us to expand our dairy programs in order to provide meaningful production and management information so needed by dairymen of our state.
  - b. In the past five years North Carolina has moved from 12th place in total swine production in the nation to 7th place. This rapid growth in the swine industry in North Carolina is extremely important to the economy of our state and the problems relating to breeding production and herd management must be dealt with.
  - c. Recent trends toward mechanical systems of productions, harvesting and marketing of agricultural products create a need for extensive studies in this area. Economic factors, changing life styles and population movements are a few of the conditions which make this trend to important.
  - d. The increasing importance of the poultry industry in North Carolina, both to the economy of our state and the consumers of the nation, require strong and effective research programs.
2. How will these conditions and trends affect the demands on the Division of Research Stations Subprograms?

The conditions and trends as outlined above are extremely important to the citizens of North Carolina. It is our responsibility, through the related state and federal agencies with which we cooperate to provide our citizens with the best possible, tested, information concerning problems relating to their agricultural activity.

From an economic standpoint we must develop, through plant breeding, better and more productive varieties of crops for human and livestock food. We must continue to increase our effort to develop the potential we have for expanding horticultural crops production, and improving our systems of marketing and preserving these valuable food crops. The rapid increase in the developing livestock and poultry industries in North Carolina make it imperative that much work be done relating to economically and environmentally sound programs for waste disposal. All indications are that the trends referred to and the conditions affecting the responsibilities of the agricultural research programs in this state will continue and intensify.

3. How will the Division of Research Stations Subprograms respond to these conditions and trends?
  - a. Complete the dairy complex now under construction at Piedmont Research Station.
  - b. Clear 200 acres of land at Tidewater Research Station to provide more suitable research land and more acreage for livestock feed to support the expanding beef cattle and swine programs.
  - c. Clear and put in production as soon as possible 35 acres at the Clinton Horticultural Crops Research Station so that needed additional research land will be available.
  - d. Consider the feasibility of establishing another Research Station in the Piedmont area on land currently owned by the state.
  - e. Construct the proposed swine finishing floor at Upper Coastal Plains Research Station.
  - f. Make available up to date facilities for poultry research at Piedmont Research Station.
  - g. Improve our bulk curing facilities for tobacco programs at the tobacco stations.
  - h. Expand our efforts relating to beef cattle production and horticultural crops production in the western counties of North Carolina.
  - i. Provide the competent and qualified personnel along with the necessary equipment and support funds to accomplish these needs.



Agriculture

Museum Subprogram

## II. RESPONSE TO TRENDS

### 1. What are the conditions and trends affecting the Museum Subprogram?

- a. With the passage of the State Land Planning Act and the Coastal Zone Management Act the State of North Carolina has become legally involved in land planning on a broad basis. Various agencies, such as the Department of Natural and Economic Resources, the Wildlife Resources Commission, State Parks and Recreation, the Office of Marine Affairs, the State Planning Office, and others, are calling on the State Museum of Natural History for scientifically accurate information on the flora and fauna of North Carolina. Although considerable data have accumulated over the past Century, much more research is necessary before the Museum can provide the accurate and extensive data on which a wise land use program must be based. The recently formalized Research and Collections branch of the Museum is conferring with resource-based state agencies in laying the groundwork for the organization of a North Carolina Natural History Survey. This will be a long-term, systematic research program, conducted by and under the supervision of the Research and Collections director and professional curators. It will be coordinated with personnel and programs of other agencies to collect information to meet the increasing needs of the State for detailed knowledge of our fauna and flora. Museum biologists, illustrators, writers, and editors will produce natural history publications based on the systematics resources of this institution. There is an ever increasing public demand at all levels for such publications, particularly in state like North Carolina where there is a definite paucity of information on the plants and animals, especially the latter.
- b. Enactment of the federal Endangered Species Act of 1973 (Public Law 93-205) made it incumbent upon the states to assess the condition of their native floras and faunas, to note those species of concern, and to plan for their protection or recovery. In 1973, a group of concerned scientists formed an ad hoc Endangered Species Committee working with the Department of Natural and Economic Resources, and in June of that year produced the "Preliminary List of Endangered Plant and Animal Species in North Carolina." In September, 1974, the State Museum of Natural History assumed the responsibility for defining and periodically reviewing the status of our biota, and in November, 1975, sponsored a "Symposium on the Endangered and Threatened Biota of North Carolina." The Proceedings of this symposium, published by the Museum, will supply some of the scientific information, based on the best expertise available in the southeast, needed by all agencies and other concerned with development, management, planning, and preservation to make informed decisions. The Museum will not only develop information and sponsor periodic reviews of those species currently considered endangered, threatened, or of special concern, but will also monitor non-game species in order to make the State aware of activities which may unwittingly lead to the extirpation or extinction of native species. Public concern for this aspect of our natural heritage is growing, and governmental agencies must be ready to respond. As mentioned, the State Museum intends to meets its responsibilities



in this area by continuing its research and education efforts, and expanding them as opportunity allows.

- c. An unprecedented increase in public interest in all aspects of the natural history of North Carolina, and the requirement that public agencies must prepare detailed environmental impact statements for proposed major projects, have created a tremendous demand for information concerning the flora and fauna of all areas of the State and adjacent regions. For over a Century the Museum of Natural History has accumulated such data, but ready retrieval of specific information is a major problem. Recent work with the Triangle-J Council of Governments and a number of other organizations involved in the preparation of impact studies has brought this fact forcibly to our attention. The Museum has recently been granted membership in the Association of Systematics Collections, a national organization which has as its goal the promulgation of excellence in making and maintaining systematics collections, and the coordination of efforts by all major museums. Special emphasis is on computerizing data and catalogues so as to make these collections much more useful and available. We intend to enter this modern era of museum services just as soon as it is feasible for us to do so. In addition, we intend to expand our publication efforts, both scientific and general, as rapidly as possible to make the invaluable information which we now have and will obtain in the future more readily available to the public.
- d. There are fifteen public natural science museums in North Carolina, all city or county sponsored. Most have very limited funds and equipment for preparation of exhibits, and few are staffed with professionally trained exhibit preparators and designers. These museum have asked the State Museum of Natural History to develop a program which would enable their personnel to come to us for workshops, training sessions, and individualized instruction in museum methods and techniques. The State Museum plans to develop and implement a program to meet their needs.
- e. The recent emphasis on environmental education has created a demand for workshops, short courses, seminars, and publications on population, community, and ecosystem functioning, from teachers, park naturalists, recreation directors, and others in this area. The State Museum is currently offering a very limited number of such activities and publications, but plans are moving ahead to expand this aspect of our programs as soon as possible. Participants in courses taught by Museum professionals will be granted certification credit by colleges and universities, and the State Department of Public Instruction. A number of the members of our current staff are former teachers and college professors, and highly qualified to design and implement such activities.
- f. In the past the State Museum has limited its exhibits to North Carolina materials, and major emphasis has been on Recent (as opposed to fossil) vertebrates. The exhibits program should be expanded to give more emphasis to invertebrates, fossils, plants, and geology. Comparative material from around the world should be incorporated into the exhibit program, particularly



to emphasize those aspects of natural history not physically represented in the State. Our citizens deserve this expansion of educational opportunity. The Museum is beginning to receive such materials from other museum and from private donors as our reputation builds. We are formulating plans for temporary display of these items until a new museum building is completed, at which time they will be incorporated into large-scale, permanent exhibits.

- g. It is the responsibility of the North Carolina State Museum of Natural History to assemble collections of plants, animals, and minerals of the State and Region, and to maintain these invaluable collections in such a manner that they are readily available to all who need them. With space and money at a premium, the ability of individuals, colleges, and universities to maintain large collections has reached a critical stage. The Museum should be prepared to integrate such collections into its holding if and when they are offered, but we are currently in no position to do so.

Facilities should be available for public lectures, and public educational institutions at all levels should be able to come to the Museum for various kinds of instruction. Space should be available for graduate students, visiting professors, Research Associates, and Associate Curators, to work with our unique collections. The present Museum facility is not designed to properly house major collections, and there is nor even minimal room for expansion. Some of our potentially useful collections are simply stored out of general reach, and receive only the barest curating and virtually no use. In addition, there is inadequate space available to provide suitable work areas and office space for the staff to carry out the research, education, public relations, and exhibit functions of the Museum as a major state museum should.

We are asking the State to provide a new Museum of Natural History building in Raleigh, and a building to house the Hampton Mariner's Museum at Beaufort, so our natural history collections and data files can be properly curated and expanded, and so we can provide the auxiliary services essential to their care, display, and proper usage. The real value of these holdings, a continuous and irreplaceable record of a major part of North Carolina's heritage, cannot be accurately expressed in monetary terms, but a great deal of public monies have gone into their assembly and maintenance. It is essential that they be used as broadly as possible and with maximum efficiency without compromising their scientific integrity, and a major future effort will be toward achieving this goal.

- h. No contemporary educational and scientific effort can be properly served at the Museum in the absence of a natural history library, catalogued and attended by a professional librarian and assistants. Except for those specialized sections currently maintained in the offices of various curators, our library facilities are in a state of disarray. This is unfortunate not only because the great bulk of our materials is unavailable for use, but also because our library holdings of books, periodicals, pamphlets, photographs, and maps include many rare and valuable items which should not be allowed to go virtually unattended and experience further deterioration. Some of the Museum's periodicals date from Volume 1, Number 1 and replacement of such collections, even where possible, would be prohibitively expensive. Most of the old photographs and negatives are completely irreplaceable. Our future plans definitely include a

remedy for this unfortunate situation, and the establishment and maintenance of a natural history library which will serve the needs of North Carolina's citizenry.



## Agriculture

### N. C. State Fair Subprogram

#### II. RESPONSE TO TRENDS

There are no trends or conditions having a profound effect on the N. C. State Fair. On a day to day basis, however, increased usage of the fairground facilities and the ever increasing cost of operation are creating a tremendous demand on all program resources. To meet these demands, the State Fair will strive to provide maximum facility availability at the lowest possible cost as outlined in the "Plan for the Biennium".

## Agriculture

### Distribution of U. S. D. A. Donated Commodities Subprogram

#### II. RESPONSE TO TRENDS

1. What are the conditions and trends affecting the Distribution of U. S. D. A. Donated Commodities Subprogram?

The Food Distribution Program is a cooperative program with the U. S. Department of Agriculture. The conditions and trends are determined to a large degree by the actions of the U. S. Congress and the U. S. Department of Agriculture. State activities in the operation of the program are, therefore, largely dependent on federal policies and actions.

The costs of storage, transportation and delivery of foods continue to rise. Costs of motor fuel, trucks and other equipment apparently will continue to increase. These items have shown the greatest percentage of increase of any of our costs during the past biennium.

The present legislation and policy of the federal government indicates a continuation of the Food Distribution Program with a projected yearly increase in the quantity of foods donated to the state for Child Nutrition Programs and for Nutrition Programs for the Elderly. Under Title VII of the Older Americans Act Program, the act provides that U. S. D. A. donated foods be made available for the Nutrition Programs for the Elderly. This phase of the program under federal law is to expand greatly. New legislation has been enacted which mandates specific levels of donation of foods to feeding programs for children and elderly persons by the U. S. Department of Agriculture.

2. How will these conditions and trends affect the demands for services for the Distribution of U. S. D. A. Donated Commodities Subprogram?

The conditions and trends mentioned above indicate that the Food Distribution Program will need to continue to operate at approximately its present level. No substantial overall changes can be forecast. This projection of very little growth is based upon the assumption that there will be no major changes in federal law and policy and also that the school age population in North Carolina would remain at approximately its present level. The volume of food received and distributed is based to a large extent on the number of eligible persons in the state with the school children representing a portion of the eligible persons.

3. How will the Distribution of U. S. D. A. Donated Commodities Subprogram respond to these conditions and trends?

The program will continue to strive for efficient and economical operation. Costs of operation will be held to a minimum. Where ever possible economies in warehousing, transportation and handling of foods in operation will be effected to hold increased cost to a minimum. If federal law, policies and regulations change, then the program will respond to such changes in the most efficient and economical manner than can be developed.











NORTH CAROLINA DEPARTMENT OF AGRICULTURE

1977-79 PROGRAM PLAN

PART A. CURRENT PROGRAM





North Carolina Department of Agriculture

Part A. Current Program

<u>Program</u>	<u>Page</u>
<u>Subprogram</u>	
Administration:	
General Administration .....	1
Administrative Services .....	2
Publications .....	3
Agricultural Services and Development:	
Markets .....	4-16
State Farmers Market .....	17
State Farm Operations .....	18-20
Agronomic Services .....	21-22
Federal-State Crop Reporting Service .....	23
Warehouse System Operations .....	24-25
N. C. Rural Rehabilitation Corporation .....	26
Consumer Protection:	
Analytical Administration .....	27-29
Commercial Feed and Pet Food .....	30-31
Food, Drugs, and Cosmetics .....	32-36
Plant Protection .....	37-41
Structural Pest .....	42-45
Pesticides .....	46-49
Animal Health .....	50-52
Meat and Poultry Inspection .....	53-54
Weights and Measures .....	55-57
Gasoline and Oil .....	58-61
Seed Testing .....	62
Fertilizer Inspection .....	63
Education and Research:	
Research Stations .....	64-65
Museum of Natural History .....	66-68
N. C. State Fair .....	69-70
Distribution of U.S.D.A. Donated Commodities .....	71-73





Agriculture

General Administration Subprogram

III. PLAN FOR THE BIENNIUM

Part A. Current Program

1. Objective: To manage the agency according to the stated purpose of each program level and to promote generally all aspects of "agriculture" in North Carolina.
2. Strategies:
  - a. Conduct regular staff meetings for the purpose of giving direction to program managers.
  - b. Maintain lines of communication and otherwise promote cooperation between Departmental programs and the agricultural leadership of NCSU.
  - c. Maintain lines of communication and otherwise promote cooperation between Departmental programs and the U. S. Department of Agriculture as well as other agencies of state government.
  - d. Participate in the activities of agricultural and consumer organizations as necessary to further the programs of the Department.
  - e. Develop and maintain a strong base from which to monitor federal and state laws and regulations dealing with environmental concerns.
3. Measures: Being purely administrative in nature, there are no measures of particular significance for this subprogram separate and apart from those shown for operating programs.



## Agriculture

## Administrative Services Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective: To provide administrative support to all programs of the agency in the areas of Planning, Budgeting, Accounting, Personnel, Purchasing and Data Processing Systems.
2. Strategies:
  - a. Maintain all existing administrative support functions as demand dictates.
  - b. Further utilize the Departmental Accounting System, especially its management information aspects.
  - c. Develop and maintain data processing systems within operating programs with special attention to areas of potential standardization.
3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Number of DP Systems Developed	2	4	8	8





## Agriculture

## Publications Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

The objective of the Publications Division is to provide accurate, timely information to the people of the state about the many programs of the Department of Agriculture and what they mean.

2. Strategies:

The following strategies will be used to accomplish the objective of the Publications Subprogram:

- a. All efforts will be directed to making this task more efficient and broader to do a more comprehensive job.
- b. The mailing list of the Agricultural Review will be purged annually in compliance with state law keeping the list current.
- c. Efforts will be made to provide radio and television exposure to the many important programs in the department.
- d. Special feature articles will be prepared informing the people of North Carolina what the N.C.D.A. is doing for them.
- e. Contact will be made to as many news outlets as possible to improve the dissemination of news.

3. Measures:

It is very difficult to put specific measures on the Publications Subprogram.

The effectiveness of the program can be evaluated through the clipping service which we receive, the response from the news media and the requests and response to ads in the Review.

Ad numbers continue to increase and circulation to the Agricultural Review continues to rise indicating a strong acceptance of this publication.

## Subscriptions to Agricultural Review:

<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
66,915	75,436	84,729	80,000	80,000

Note: Projected drop in subscriptions for 1977-79 due to circularization of mailing list each year.





Agriculture

Markets Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part A. Current Program

##### 1. Objective:

To assist North Carolina farmers, as well as others engaged in all levels of marketing agricultural products, to do the most efficient job possible as a means of increasing returns to producers and providing wholesome, quality products to consumers at the lowest possible prices.

##### 2. Strategies:

The following strategies will be used to accomplish the objectives of the Markets Subprogram:

a. The division will continue to advise producers and assist them in utilizing proven practices in marketing their products.

b. Buyer contacts will be maintained and additional buyers, both domestic and foreign, will be kept informed of the availability of North Carolina farm products as a means of adding strength to the market for these products.

c. Producers will be kept informed of current market values for their products to aid them in making their marketing decisions.

d. Engineering services will continue to be provided upon request to all individuals and firms engaged in any phase of marketing farm products to aid them in increasing efficiency, improving product quality or in meeting Environmental Protection, Occupational Safety and Health, Food Inspection and other Federal requirements that are now being enforced.

e. Increased efforts will be made to utilize every available resource, particularly the news media, to call the public's attention to the availability and variety of quality food products in North Carolina and promote increased consumption of these products.

f. Interested individuals will be assisted in the formation of marketing cooperatives to aid them in marketing their products as efficiently as possible and in purchasing their production needs as economically as possible.

g. Communities, towns and cities will be encouraged and assisted in providing facilities where farmers can sell produce direct to consumers. There is a growing interest among both producers and consumers for this system of marketing to be expanded.

h. Close contact will be maintained with transportation systems, which have such a vital role in the marketing of North Carolina agricultural products, in order to better assure sufficient equipment availability during peak harvest periods.

i. Efforts will be continued to attract additional processing facilities into the state to better utilize the increased volume of fruits and vegetables now being produced in North Carolina.

### 3. Measures:

Because of the many and varied services rendered by the Markets Subprogram, it is difficult to place an aggregate value on its usefulness. It is apparent, however, from the increasing demands for these services from those engaged in all levels of marketing that they are proving beneficial to the state's agricultural industry. It is evident, too, from the rapid changes occurring in the marketing system that these services are going to be even more vital in the years ahead if farmers are to derive sufficient profits from their efforts to keep them in operation.

The information that follows indicates the scope of a few of the services rendered by the Markets Subprogram.

<u>Services</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Feeder Cattle Marketed	47,751	42,650	51,451	54,000	57,000	59,000	61,000
Feeder Pigs Marketed	231,310	263,943	291,649	321,600	350,000	370,000	390,000
Commercial Grain Storage Added (Mil. Bu.)	2.8	2.4	1.3	3.8	2.5	1.5	1.5
Contractual Acreage of Vegetables Obtained	30,961	31,334	33,649	34,200	35,000	36,000	37,000
Farm Cooperatives Organized	15	20	26	35	40	45	50
Value of N. C. Farm Products Exported (mil)	\$ 526	\$ 730	\$ 765	\$ 785	\$ 800	\$ 820	\$ 850
Daily Radio Market News Broadcasts	2	3	7	10	12	12	12
Engineering Projects	91	168	205	300	325	340	360

The actual and projected increase in work load indicates a continuing increase in demand for services of the Markets Subprogram.





## Agriculture

## Markets Subprogram

## Western North Carolina Agricultural Center Element

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To assist the residents of Western North Carolina in the further development of all phases of agriculture with youth groups, adult farmers, agri-business groups, and other agricultural related groups.

2. Strategies:

The following strategies will be used to accomplish the objectives.

- A. The division will provide the following facilities: a holding barn approximately 50' x 250'; a sales ring and arena with seating capacity of 400 people; and a youth building with is a multi-purpose use facility that accommodates meetings, conferences, and will sleep approximately 40 youths.
- B. The facility will be used for various livestock events for 4 H Club and Future Farmers of America members, for purebred cattle shows and sales, educational meetings, agricultural field days, demonstrations, exhibitions, etc.
- C. The facility will be managed by a part-time person under the supervision of the division and an advisory committee appointed by the Commissioner of Agriculture.
- D. The part-time manager will promote the use of the facility in the eighteen western counties through other agricultural agencies.

3. Measures:

Because of the many agricultural groups that may use these facilities, it is difficult to predict its use, however, the following information indicates the scope of the groups that have used it in the past three years and an estimate for 1976.

Number of Days Used

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
<u>Youth Building</u>							
Conferences	2	1	2	3	4	6	7
Seminars & Study Courses	9	5	0	6	8	9	11
Club Meetings	1	5	11	7	8	10	12
4 H & FFA	3	2	3	4	7	9	11

Arena and/or Barn

Beef Cattle Shows & Sales	2	2	2	3	5	5	6
Dairy Cattle Shows & Sales	5	2	4	4	5	5	7
Equestrian	0	4	0	4	6	7	8
4 H & FFA	1	0	0	2	3	4	5
Breeder Clinics	0	4	0	4	6	6	6
Farm Credit Assoc. Meetings	1	1	0	1	1	1	1
Adult Farmer Groups	1	0	0	3	6	6	7



Agriculture

Markets (Cooperative Inspection) Subprogram  
Poultry Element

III. PLAN FOR THE BIENNIUM

Part A. Current Program

1. Objective:

To train, license and supervise a sufficient number of graders for determining and certifying the official grade of poultry, eggs and egg products in response to industry requests in order that these products can be priced on a fair basis as they are marketed.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Poultry Element:

a. A sufficient number of trained licensed graders will be maintained to render poultry grading services upon request.

b. Each grader will be supervised on a regular basis to insure uniform application of standards.

c. Every effort will be made to utilize personnel to the fullest extent possible in order to provide these services at minimum costs to the user.

3. Measures:

It is virtually impossible to place a value on the grading services rendered by the poultry element. However, it is readily apparent that management in each plant where these services are rendered would not pay for this service unless it made their products more valuable or acceptable in the market place. Therefore, each user makes the continuing decision that the cost of grading services is more than offset by the increased value of the product.

The following information indicates the scope of grading services provided by the Poultry Element:

<u>Products Graded</u>	<u>1973 (lbs.)</u>	<u>1974 (lbs.)</u>	<u>1975 (lbs.)</u>	<u>1976 (lbs.)</u>	<u>1977 (lbs.)</u>	<u>1978 (lbs.)</u>	<u>1979 (lbs.)</u>
Shell Eggs	74,807,851	99,267,995	84,211,404	90,992,100	91,500,000	92,000,000	92,500,000
Egg Products	8,039,293	7,482,337	2,148,420	1,982,900	2,000,000	2,000,000	2,000,000
Chickens	308,228,692	417,658,519	438,309,366	512,981,504	560,000,000	620,000,000	660,000,000
Turkeys	141,009,055	179,067,747	126,429,075	129,899,168	140,000,000	145,000,000	150,000,000

The actual and projected volume indicates a continued increase in demand for grading services of these products.

## Agriculture

### Markets (Cooperative Inspection) Subprogram Livestock and Red Meats Element

#### III. PLAN FOR THE BIENNIUM

##### Part A. Current Program

#### 1. Objective:

To train, license and supervise a sufficient number of graders for determining and certifying the official grades of livestock and red meats in order that these products can be priced on a fair basis as they are marketed. To examine red meats and red meat products moving from local packers to state institutions to assure their conforming to specifications.

#### 2. Strategies:

The following strategies will be used to accomplish the objectives of the Livestock and Red Meats Element.

a. A sufficient number of trained, licensed graders will be maintained to render the grading and acceptance services upon request.

b. Every effort will be made to utilize personnel to the fullest extent possible in order to provide these services at minimum costs to the user.

c. Information will continue to be provided state institutions through personal contact to appraise them of the merits of fully utilizing the acceptance program.

#### 3. Measures:

The value of this service can best be related to the use made of it by the meat packing industry. Management, in each instance, must decide that officially graded products will be more valuable and more acceptable in the market place to justify costs for the service. The acceptance program is of immense value to state institutions in that it assures them of receiving the quality of meats and meat products per their specifications.

The following information indicates the scope of grading services provided by the Livestock and Red Meats Element:



<u>Products Graded</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Feeder Cattle	47,751	42,650	51,451	54,000	56,000	58,000	60,000
Feeder Pigs	231,310	263,943	291,649	321,600	345,000	360,000	375,000
Beef Carcasses (lbs)	8,653,592	18,120,195	21,382,147	25,580,000	28,000,000	31,000,000	34,000,000
Red Meat Accepted for State Institutions (lbs)	3,312,988	2,930,572	2,931,493	3,220,500	3,500,000	3,600,000	3,900,000

The actual and projected volume indicates a continued increase in demand for grading services.

## Agriculture

Markets (Cooperative Inspection) Subprogram  
Horticulture Element

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To train, license and supervise a sufficient number of graders for determining and certifying the official grade of fresh fruits, vegetables and peanuts in order that these crops can be priced on a fair basis as they are marketed.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Horticulture Element:

a. Renewed efforts will be made to recruit and seek assistance from other agencies in recruiting the best possible candidates for training as commodity graders. Because of the short duration of much of this work and resulting short periods of employment, recruitment to fill up to 300 such positions each year requires almost constant efforts.

b. Training classes as well as on-the-job training will be provided new recruits before they are placed in specific assignments.

c. Once placed at specific market locations, each grader will be supervised on a regular basis to insure uniform application of standards.

d. Personal contact will be maintained by supervisory personnel with the users of each grader to assure satisfactory service.

e. Fees for the grading services rendered will be reviewed each season and modified in order to keep costs to the user as low as possible but at such a level to cover total costs of the grading program.

3. Measures:

The value of the Horticulture Element can best be stated in that a farmer with fresh fruits and vegetables or peanuts for sale can have an official grade designated on his products which, in effect, protects him from having to sell them at below-market values. This service is essential if fairness is to prevail at the market place.

The following information indicates the scope of grading services provided by the Horticulture Element:

<u>Products Graded</u>	<u>1973 (lbs)</u>	<u>1974 (lbs)</u>	<u>1975 (lbs)</u>	<u>1976 (lbs)</u>	<u>1977 (lbs)</u>	<u>1978 (lbs)</u>	<u>1979 (lbs)</u>
Peanuts (Farmer Stock)	484,190,000	405,454,000	388,814,000	426,152,660	430,000,000	440,000,000	440,000,000
Shelled Peanuts	206,734,269	187,436,216	225,250,698	206,473,700	225,000,000	230,000,000	235,000,000
Fruits & Vegetables	125,941,100	237,844,321	122,202,636	161,996,000	175,000,000	180,000,000	185,000,000
Terminal Inspections (F&V)	26,369,486	22,049,697	24,820,227	24,413,137	25,000,000	25,500,000	26,000,000

The actual and projected volume indicates a continued increase in demand for grading services depending on acreages planted.



## Agriculture

### Markets (Cooperative Inspection) Subprogram Field Crops Element

#### III. PLAN FOR THE BIENNIUM

##### Part A. Current Program

###### 1. Objective:

To train, license and supervise a sufficient number of graders for determining and certifying the official grade of corn, soybeans, small grains and hay in order that these crops can be priced on a fair basis as they are marketed.

###### 2. Strategies:

The following strategies will be used to accomplish the objectives of the Field Crops Element:

a. A sufficient number of trained, licensed graders will be maintained to render grain grading services upon request.

b. Each grader will be supervised on a regular basis to insure uniform application of standards.

c. Grain grading schools will be held in various locations of the state to acquaint producers and others with the standards used in grading so they can better determine the quality of their grain.

d. Submitted samples of grain from farmers, dealers or others who wish to know more specifically about the quality of grain they have on hand will be graded for factors requested upon receipt of such samples at one of the official grading stations.

###### 3. Measures:

Guessing the grade of a given lot of grain compared to determining the official grade according to specific standards and procedures can mean the difference of several cents per bushel to a farmer at the time he markets his grain. Therefore, if farmers are to receive true market prices for their grain, it is important that it be officially graded.

The following information indicates the scope of grading services provided by the Field Crops Element:

<u>Units Graded</u>	<u>1973 (No.)</u>	<u>1974 (No.)</u>	<u>1975 (No.)</u>	<u>1976 (No.)</u>	<u>1977 (No.)</u>	<u>1978 (No.)</u>	<u>1979 (No.)</u>
Rail Cars	4,805	6,071	4,858	6,500	7,600	7,800	8,000
Trucks	9,515	10,282	8,999	16,000	19,000	21,000	22,000
Trailers	11,394	12,627	10,801	17,000	18,000	18,500	19,500
Barges	4	1	0	3	3	3	3
Bins	0	74	44	90	95	95	95
Submitted Samples	<u>440</u>	<u>900</u>	<u>696</u>	<u>1,148</u>	<u>1,500</u>	<u>1,600</u>	<u>1,700</u>
Totals	26,158	29,955	25,398	40,741	46,198	48,998	51,298

The actual and projected volume indicates a continued increase in demand for grading services.

## Agriculture

## State Farmers Market Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective: To operate the market program according to the stated purpose and to develop plans for future relocation of all market facilities.
2. Strategies:
  - a. Conduct a study of possible market locations providing the greatest potential at the lowest cost.
  - b. Request a feasibility study by USDA to determine optimum market facilities such as number of Wholesale Units, Retail Units, size of Farmers Area, Truckers Area and best arrangement.
  - c. Conduct a study of the market's rental rate structure for operation at the present site and assuming relocation.

3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Sellers Utilizing Market	14,500	14,500	14,500	14,500
Patrons (All Types)	100,000	105,000	115,000	125,000





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objectives:

To provide a good basic supply of food which is high quality and economically produced for the residents of the Department of Human Resources institutions.

To provide support services for research and teaching programs with North Carolina State University providing it does not interfere with the production of food.

2. Strategies

The following strategies will be used to accomplish the objectives of the State Farm Operations Subprogram.

- a. With the cooperation of the directors of dietary services, determine the volume and variety of food products needed by the institutions within the Department of Human Resources.
- b. Determine which crops can be grown on each farm unit, considering the crop needed, soil types available and climate conditions.
- c. Collect soil samples, mail to Agronomic Services and abide by their recommendations as to the volume and analysis of fertilizer needed for each crop on each farm unit. This will enable the farm operation to fertilize to maximum and the most economical yield on each crop.
- d. Determine the necessary grain and hay requirement for each animal unit. We will grow those crops which will support our livestock at the very least cost possible.
- e. Deliver the food products (milk, beef, pork, eggs and vegetables) to each institution on a predetermined schedule. This delivery will in some cases mean transferring food products. We will grow the products at the most desirable locations, then transport to each using institution.
- f. Collect forage samples when harvesting to determine a least cost ration for the dairy animals.
- g. Price the farm products according to the average price received by farmers in North Carolina. This information is on a weekly basis and is received from the Market News Division, N. C. Department of Agriculture.



- h. Start moving the poultry operations into one central operation to further economize on feed, labor and utilities.

The following strategies will be used to accomplish the support services for research and teaching.

- a. The animals in the five dairy herds are used in a dairy cattle breeding and management research program. The research program has been conducted for the past 26 years and much more valuable information can be obtained because of the accumulated knowledge about the dairy herds in the farm operation. This information is not available with any other large number of dairy cattle in the world. The yearly production has increased 6,000 pounds of milk per cow. All dairy animals are involved in two or more research programs at the present time.
- b. All the milk from Umstead, Dix and Cherry Farm Units is shipped to North Carolina State University where it is processed and used in milk processing research. Also, this supply is sufficient for teaching purposes with both graduate and undergraduate students.
- c. The dairy animals will continue to be used to study efficient reproduction. The results of this research have been adapted for use in commercial herds in N. C. and other states to provide a management tool that can reduce the loss for each day a cow delays in getting with calf.
- d. Breed 25 percent of the dairy cows to young pedigree selected sires. As daughters of these young sires freshen, dairymen of N. C. will have the opportunity to observe them in deciding if they will be profitable and desirable for their herds.
- e. Breed the beef herds at Umstead and Broughton using a three-breed rotational crossing project. It is a known fact that cross bred cattle produce more pounds of beef compared to straight bred Hereford controls. This being demonstrated to N. C. farmers and at the same time a high level of heterosis is being maintained.
- f. The beef herds are being used to determine the most profitable feeding systems for beef steers using farm raised feeds and by-products available in N. C.
- g. Use the least cost systems for wintering beef cows and stockers on the farms.
- h. In addition to the quality breeding advantages mentioned in (d) above, the other seventy-five percent of the dairy animals are bred to the available top proven bulls to: (a) investigate the merits of sire selection, and (b) produce superior milk cows. In past years the State Farm Operations have made over 750 high quality animals available to N. C. dairymen and thus improved the total dairy industry of the state.



3. Measures:

The State Farm Operations was established July 1, 1974; however, we know that the quantity and quality of food produced and used by the institutions is higher than would be purchased.

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Dairy cows	570	589	590	612	612
Beef cows	560	571	570	325	325
Beef (feeders)	640	681	685	215	215
Sows	620	639	670	703	703
Hogs (feeders)	7,780	8,071	9,200	10,777	10,777
Layers	37,000	36,779	33,000	31,500	31,500
Crops (acreage)					
Corn	3,890	3,895	3,740	3,635	3,635
Hay & small grain	1,884	1,879	1,650	1,292	1,292
Soybeans	470	470	450	-	-
Vegetables	40	40	40	30	30
Pasture (improved)	2,395	2,395	2,390	1,717	1,717
Woodland	11,920	11,920	11,920	11,909	11,909
Double crop	1,154	1,154	707	-	-
Value of goods & services produced	2,367,356	2,871,396	2,986,402	3,165,586	3,355,521

These projected measures take into account that the new farm plan would be put into effect beginning the first year of the biennium.

1. The purpose of this study is to determine the effect of the proposed changes on the financial position of the company.

2. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

Particulars		1954	1955	1956
Assets				
Current Assets				
Cash		100,000	120,000	150,000
Accounts Receivable		200,000	220,000	250,000
Inventory		150,000	180,000	200,000
Prepaid Expenses		50,000	60,000	70,000
Fixed Assets				
Land		500,000	500,000	500,000
Buildings		300,000	300,000	300,000
Equipment		200,000	250,000	300,000
Total		1,150,000	1,250,000	1,370,000

Particulars		1954	1955	1956
Liabilities				
Current Liabilities				
Accounts Payable		150,000	180,000	200,000
Notes Payable		100,000	120,000	150,000
Accrued Liabilities		50,000	60,000	70,000
Long-Term Liabilities				
Mortgage Payable		400,000	400,000	400,000
Total		700,000	760,000	820,000

3. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

4. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

5. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

6. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

7. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

8. The study is being conducted in order to provide the management with the information necessary to make a decision on whether or not to implement the proposed changes.

## Agriculture

## Agronomic Services Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To provide high quality agronomic services to the citizens of North Carolina in order that crop production efficiency can be increased, and soil conservation and environmental quality be enhanced.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Agronomic Services Subprogram:

- a. The division will continue to carry out methodology research and cooperative state calibration research. The result of this effort will be the generation of new knowledge and methods which can be applied to our advisory programs.
- b. Periodic updating of the Soil Testing, Plant Analysis, and Nematode Advisory Service Programs will be carried out to make them consistent with the latest field calibration and methodology research. This effort is necessary in order that we may maintain quality programs which are pertinent to the needs and problems of our citizens.
- c. An educational program utilizing radio, TV, news releases, state and county summaries, state and regional workshops, program brochures, speeches and public contact will be employed to acquaint the citizens, and local and state agencies as well, of the benefits to be derived from the services provided. Primary emphasis will be on how soil testing, plant analysis, and nematode assay can aid in economic production of commercial crops. However, considerable effort will be devoted to showing how the programs can aid in environmental improvement.
- d. All samples received for routine soil testing will be analyzed for volume weight, pH, BpH, organic matter, phosphorus, potassium, calcium, magnesium and manganese. The results of these tests will be interpreted and nutrients, lime, and management suggestions made so that optimum plant growth may be obtained.
- e. All "problem soil samples" on which the sender is experiencing severe plant nutritional problems will receive the red carpet treatment. Each of these samples may have 17 different determinations made on them. An experienced agronomist will interpret the results and make suggestions for corrective action. Approximately 6,000 "problem" samples are processed each year.
- f. Plant Analysis, as a supplementary tool to Soil Testing and Nematode Assay, is a program which will provide a service in which farmers can obtain a rapid diagnosis of problem areas and often make corrections in that year to prevent a complete crop loss. Plant samples will be



analyzed for nitrogen, phosphorus, potassium, calcium, magnesium manganese, copper, zinc and boron. Additional determinations may be made where the situation warrants.

- g. Nematodes are one of the principal limiting factors in agricultural production. Not only are the yields frequently and seriously reduced, but the quality of the produce is often lowered by their damage. The Nematode Advisory Service program will assay samples and provide management advice to make it possible for farmers and others to determine if expensive chemical control measures are necessary before the crop is planted.
- h. The Agronomic Services Subprogram will cross-utilize all equipment and personnel within the Soil Testing, Plant Analysis, and Nematode Advisory programs in order to operate as efficiently as possible.
- i. The Regional Agronomist for the northeast will interpret and promote the programs of the Agronomic Division. This will include the Soil Testing, Plant Analysis, and the Nematode Advisory Service. This person will work very closely with individual farmers, Extension, and fertilizer industry personnel in getting, stressing the importance of representative soil samples and interpreting reports. He will advise farmers on fertilizer, lime, disease control, and other management practices. This effort will increase the knowledge of and appreciation for these income generating practices.

### 3. Measures:

It is difficult to make a direct evaluation of the usefulness of the agronomic services due to the many interacting factors. However, if North Carolina is to fulfill its role as an agricultural state in providing food and fiber for the ever expanding population, agronomic services must be provided.

A consideration of the following information gives some idea of the extent of services provided and people served by the Agronomic Services Subprogram:

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Soil Testing					
Farmers and homeowners served	26,253	28,200	30,400	30,400	30,400
Number of samples	116,846	125,000	135,000	135,000	135,000
Number of determinations	1,060,103	1,134,400	1,224,700	1,224,700	1,224,700
Nematode Advisory					
Farmers and homeowners served	1,507	3,340	5,000	5,000	5,000
Number of samples	4,800	10,000	15,000	15,000	15,000
Number of determinations	72,000	50,000	225,000	225,000	225,000
Plant Analysis					
Farmers and homeowners served	164	410	612	612	612
Number of samples	789	2,000	3,000	3,000	3,000
Number of determinations	9,468	24,000	36,000	36,000	36,000

The actual and projected increase in work load indicates a continuing concern for efficiency of crop production, soil conservation and environmental quality.



## Federal-State Crop Reporting Service Program

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To survey, estimate and provide timely, accurate crop and livestock production and price information to farmers and all citizens of North Carolina to assist and benefit them in agricultural production planning and marketing.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Federal/State Crop and Livestock Reporting Service:

- a. The Division will continue to conduct surveys, evaluate responses, prepare agricultural estimates and provide the information to the public in a timely manner.
- b. Specialized Lists will be built, improved and maintained which will attempt to include all producers of specified commodities and some control data information, such as size of operation.
- c. Sampling methods will be updated as needed to insure efficient sampling from specialized name lists.
- d. Responses from survey respondents will be key punched and monitored for reasonableness on computers using programmed limits and allowable relationships to assure good quality inputs.
- e. Computer technology will be used increasingly to summarize and evaluate quality of survey estimates.
- f. Increased efforts will be extended to news media, radio, TV, and press to disseminate crop and livestock releases and publications as broadly and promptly as possible.

3. Measures:

Agricultural statistics provide the basic facts needed for farmers and others interested in agriculture to make national, well considered decisions on providing the optimum levels of food and fiber. A measure of the popularity and demand for the many issuances from our Division are shown below as distributed by year:

	1974-75	1975-76	1976-77 1/	1977-78 1/	1978-79 1/
Crop and Livestock Releases	287,092	294,639	290,000	285,000	285,000
Land Utilization Reports	32,382	33,000 1/	32,000	32,000	32,000
Publications					
Agricultural Statistics	4,501	4,500 1/	4,500	4,500	4,500
(72 Pages)					
Farm Income (20 Pages)	536	550 1/	600	600	600

1/ Estimated

1. PLAN FOR THE YEAR

The following is a summary of the work planned for the year 1960-1961. The work is divided into four main areas: (1) General Administration, (2) Research, (3) Extension, and (4) Miscellaneous.

1. General Administration: This area includes the work of the administrative staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

2. Research: This area includes the work of the research staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

3. Extension: This area includes the work of the extension staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

4. Miscellaneous: This area includes the work of the miscellaneous staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

The following is a summary of the work planned for the year 1960-1961. The work is divided into four main areas: (1) General Administration, (2) Research, (3) Extension, and (4) Miscellaneous.

1. General Administration: This area includes the work of the administrative staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

2. Research: This area includes the work of the research staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

3. Extension: This area includes the work of the extension staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.

4. Miscellaneous: This area includes the work of the miscellaneous staff, the maintenance of the library, and the general management of the institution. The work is planned to be completed by the end of the year.



## Agriculture

## Warehouse System Operations Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part A. Current Program

1. Objective:

To protect the financial interests of North Carolina by stimulating the development of an adequate warehouse system for cotton and other agricultural commodities to enable growers to more successfully withstand and remedy periods of depressed prices, and to provide a modern system whereby cotton and other agricultural commodities may be profitably and scientifically marketed.

2. Strategies:

- A. Continue to invest State Warehouse System funds in secured first mortgage notes or bonds to aid and encourage the establishment of warehouses operating under the system.
- B. The litigation in which the State Warehouse System is now involved places constraints on our operation at this time. However, we expect a favorable ruling when the decision is handed down concerning this litigation after which we will be able to reevaluate warehousing needs in North Carolina and take the action necessary to accomplish our objectives. The following strategies will be used to accomplish the objectives of the State Warehouse System when it is reactivated:
  - (1) Obtain from the General Assembly any needed updating of our Warehouse Law.
  - (2) License private or corporate warehouse property for the warehousing of agricultural commodities as a component unit of the State Warehouse System.
  - (3) Require bonds to safeguard the interests of the State and of depositors of agricultural commodities with valid, subsisting, and duly authenticated official negotiable warehouse receipts issued under and pursuant to the General Statutes of North Carolina.
  - (4) Provide a system of examination and supervision of all licensed public storage warehouses in cooperation with the Warehouse Service Branch, Agricultural Marketing Service, U. S. Department of Agriculture
  - (5) Require financial statements from all local managers.
  - (6) Insure and keep insured to its full value all cotton or other agricultural commodities stored in warehouses operating under the system.

- (7) Require daily reporting for insurance purposes of all cotton or other agricultural commodities.
- (8) Approve tariffs of all licensed warehouses.
- (9) Approve all accounting procedures relating to storage obligations.

Agriculture

North Carolina Rural Rehabilitation Corporation Subprogram

III PLAN FOR THE BIENNIUM

Part A. Current Program

1. Objective: To provide financial assistance to applicants for the development of rural North Carolina.
2. Strategies:
  - a. Conduct regular meetings of the Board and Loan Committee for the purpose of reviewing loan applications.
  - b. Provide grant funds for continuing education for 4H instructors.
  - c. Invest corporation funds in approved securities to maximize return.
  - d. Continue collection efforts on outstanding loans.





## Agriculture

## Analytical Administration Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To plan, review and coordinate the Food and Drug Protection Division programs for most effective use of resources and to properly regulate those commodities and products under statutory obligation.

2. Strategies:

- a. Construct for presentation to 1977 General Assembly an amendment to the State Food, Drug and Cosmetic Act, providing for annually-issued inspection permits, the purposes of which are to: (1) guarantee a current establishment inventory, so as to properly plan inspectional activities; and (2) establish an administrative route for dealing with persistent violators through permit suspension or revocation, causing a cessation of activities, either temporarily until remedial measures are made, or longer, as circumstances require. (Overlaps with Food and Drug Subprogram Response to Trends as this function comes under Analytical Administration responsibilities).
- b. Construct for presentation to 1977 General Assembly a proposed product safety act, the purpose of which is to provide for the labeling, composition, orderly removal from market and banning where necessary of those household products offering a potential hazard to the user or other persons nearby. Whereas the Governor has designated the Consumer Protection Division of the Department of Justice as the lead state agency, the Attorney General recognizes the capability of NCDA in undertaking this responsibility and has agreed to support this move. (Overlaps with Food and Drug Subprogram Response to Trends).
- c. Expand training workshops for senior level food inspectors to emphasize "high-risk" categories of foods, (low-acid canned foods, fish products, bottled water, certain baked goods), which must be closely controlled at time of manufacture to obviate development of disease-causing organisms. The intent is to provide inspectors with background to do adequate records searches so as to verify the processing history of firms.
- d. Review territorial and workload assignments to assure equivalent responsibilities among field personnel.
- e. Prepare regulations pertaining to retail advertising and marketing of foods, salvage food handling practices, and retail meat identity standards for presentation to the N. C. Board of Agriculture.
- f. Investigate automated laboratory analytical methods, the results of which are to be recorded for computer treatment and reporting to the affected clientele. Many laboratory analyses (examples: nitrogen, phosphorous, potash, secondary and minor nutrients in fertilizer;



protein in feeds) are performed repetitively thousands of times during the year to attain desired results. Rapid, automated screening tests to ascertain compliance with guarantees of law requirements can save time and money over the "wet" chemistry methods utilizing chemist hand labor.

- g. Plan and oversee movement of Division activities from the Edenton Street location to the new Blue Ridge Road laboratory. This will necessitate the phased withdrawal of each work unit so as not to unduly affect its output. Due to the completely contained management of the new building, problems such as equipment maintenance (plumbing, electrical, heating and air conditioning), laboratory stock room maintenance, delivery, receipt, and custodial services must be independently arranged.

### 3. Measures:

Several of the strategies involve internal service and management evaluations, which indirectly affect service to the public.

- a. Acquiring ability to administratively restrict food operations by way of inspection permit suspension is expected to have a balancing effect against the number of anticipated court cases, which are both costly and time-consuming to the State. Rarely is a firm required to immediately cease operations to correct deficiencies, and courts are hesitant to exercise this prerogative. Additionally, marginal firms tend to escape close scrutiny since resources presently available do not allow extensive pursuit of their problems.

	<u>FY 74-75</u>	<u>FY 75-76</u>	<u>FY 76-77</u>	<u>FY 77-78</u>	<u>FY 78-79</u>
Plant closures	53	53	60	60	65
Hearings	7	5	5	9	9
Permit suspensions or revocations *	-	-	-	5	10
Court Cases					
Civil	5	4	4	2	2
Criminal	3	2	2	2	2

\* Includes soft serve ice cream and milk shake dispensers which are frequently seasonal operations in resort areas.

- b. Enactment of a product safety act will enable this Division to initiate action against hazardous products similar to those mentioned in the Response to Trends Section: drain cleaners, lead-containing pottery bearing lead-containing glazes, toys such as "clacker-balls" (clear plastic balls which tended to shatter when impacted together) and other items.

There are several instances per year when action should be taken to remove such products from the marketplace.



- c. There is expected to be a higher percentage of problem firms in the "high risk" food category following the initiation of extensive records inspection. Voluntary initiation of corrections is expected to be high.

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
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% of Firms in "High				
Risk" Category				
Experiencing Problems	--	20	25	15

- d. Field inspection territory and workload obligations will be reviewed as a second phase of the reorganization of the Dairy and Analytical Chemistry Divisions. Complexity of duties assigned as well as individual inspector accomplishments are to be evaluated. Such evaluation is expected to result in less travel time to jobs, smaller expenses (or reduction in rate of expense increase), and better utilization of inspector capabilities.
- e. Adoption of regulations regarding food advertising and marketing, handling of salvage foods, and retail meat identity standards is expected to result in less deception of consumers as well as more definitive information so as to better inform purchasers in providing: (1) that advertised food "bargains" are available in sufficient quantity at advertised prices; (2) that superlatively labeled meat products, i.e. "lean" hamburger, "extra lean" hamburger meet standards as to percentage of fat, and are accordingly labeled; (3) that deceptively labeled meats, i.e. "Watermelon Steak", "Family Steak", etc. are labeled in properly-understood terms; (4) that consumers are not "baited" to purchase a product at a low cost, only to be "switched" to a higher priced article and (5) that products salvaged from natural catastrophes or manufacturing or handling mishaps are in fact reclaimed in such manner as to meet proper sanitation and marketing standards.
- f. The investigation of automated analytical methods will involve installation of automated nitrogen assay equipment in the fertilizer laboratory. A statistical study will be made of the accuracy, precision and cost per sample of automated versus "wet" chemical assay. As a screening method, a certain degree of accuracy can be sacrificed, for parameters would ultimately be drawn so as to reassay by conventional "wet" methods those samples of borderline quality. The ultimate desire is to design a system whereby samples analyzed "auto-electronically" are of such accuracy and precision as to be used for issuance of penalty reports.





## Agriculture

## Commercial Animal Feed &amp; Pet Food Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

The objective of the current program is threefold: (1) to protect the livestock and poultry producers and pet owners by assuring them of supplies of feed that are adequately and accurately labeled; (2) to protect feed manufacturers from dishonest competition; and (3) to protect the consumers of meat, milk and eggs by helping assure that these animal products are wholesome and free from hazardous substances.

2. Strategies:

a. Annual registration of commercial feed. Annual registration of commercial feeds, canned pet foods and specialty pet food will continue to be a major function of this subprogram. Presently this is time-consuming and once registration is complete, information is difficult to retrieve. Plans are to computerize this function during the 1977-79 biennium. Not only will this make information more readily available, it will provide a means for current product inventory to be placed in the hands of inspectors so that immediate action may be taken on illegally-distributed commercial feeds.

b. Collection and analysis of official samples. Collecting and analyzing official samples of commercial feed will continue. More emphasis and effort will be placed on collecting samples of bulk feeds, as a large majority of feed shipments is in bulk.

The types of analysis being made on official samples will continue to be reviewed. Types of analysis that present few regulatory problems will be decreased or eliminated and those that continue to be a regulatory problem will be increased. More work in developing methods for detecting significant cross-contamination or carryover from one production run of feed to another will be done.

c. Medicated Feed Establishment Inspections. Inspection of establishments employing drugs in manufacturing feed will continue. More effort, using existing resources, will be placed toward providing information and interpreting regulations for the feed industry in order to encourage voluntary compliance and reduce the regulatory action that must be taken.

d. Enforcement Proceedings. Other measures such as assessing penalties for irregular goods, issuing "withdrawal from distribution" orders on products distributed illegally, cancellation of registration for continued or gross violations, etc. will be continued to provide constraints to help prevent undesirable conditions.



3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Commercial feeds registered (1975)	5,800	5,300	5,000	5,000
Routine inspections made	8,000	8,000	8,000	8,000
Medicated feed establish- ment inspections	250	250	250	250
Official samples collected and analyzed	3,500	3,500	3,750	3,750
Total number of analyses made	24,000	24,000	26,000	26,500
Analyses for medication in above feeds	2,500	2,500	2,800	2,800
State Stop Sales issued (lots)	90	100	100	100
Penalties assessed and paid to users	\$36,000.00	\$35,000.00	\$35,000.00	\$35,000.00
Penalties assessed and paid to Department	\$36,000.00	\$35,000.00	\$35,000.00	\$35,000.00
Total penalties assessed	\$72,000.00	\$70,000.00	\$70,000.00	\$70,000.00
Feed on which inspection fee was paid (tons)	1,236,449	1,300,000	1,300,000	1,300,000

## Agriculture

## Foods, Drugs and Cosmetics Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To assure a safe, clean and wholesome food supply for the citizens of North Carolina.

2. Strategies:

- a. Inspection of processing, storage and transportation facilities for hazard and sanitation problems will continue. Increased surveillance will be given low-acid canneries, especially those operated by community action program groups, wherein improper control of the commercial sterilizing of food may lead to bacterial production of deadly botulinum toxin. Recovery in total number of inspections, reduced as a result of cross-training of inspectors and rearrangement of territories during 1975-76, will be realized.
- b. Survey of raw agricultural commodities for presence of mold toxins or excessive pesticide residues will be carried out. Feed grains, finished feeds and human food will be evaluated for presence of mold toxins, primarily aflatoxin, which is of considerable significance in the Southeast. This toxin, shown to be both a liver toxin and a liver cancer-causing agent, has profound significance in regard to animal growth retardation, animal deaths, and harmful residues in human food. Information will be gathered to further efforts for establishing permissible national tolerances through cooperating federal and state officials.

Assessment of recent trends away from use of highly persistent organochlorine pesticides to less persistent but (frequently) more highly toxic organophosphates and carbamates appears necessary to assure continued confidence in the safety of pesticide-treated food and feedstuffs.

- c. Consumer complaints will be followed up in accordance with newly-established policy: those samples allegedly causing consumer illness or injury will be given highest priority. Opened samples containing filth or foreign matter which have not caused illness or injury will be followed up by field inspectors directly with the complainant and the manufacturer, where possible. This is an attempt to alleviate the burden on laboratory facilities, primarily through reduction of the testing of complaint soft drinks, which account for 40% of all food complaints (attributable to problems associated with returnable containers) and almost invariably are of random happenstance. This will allow more efficient direction of resources to those complaints which by nature or investigation prove to reflect product lot quality rather than isolated contamination. Product lots reflecting health or esthetic



deficiencies will be removed from channels of commerce. Recent recalls include flour and corn meal (insect contamination), hamburger (illegal preservatives), soft drinks (yeast contamination), and soft drink syrup (mold contamination).

The net result will not be to stem consumer complaints, but to more adequately handle those of critical nature.

- d. Compliance samples of soft serve ice milk, ice milk shakes, and ice creams will be assayed for conformance to microbiological criteria. Attempts will be made through hearings and inspection permit withdrawal to reduce the violation rate due to use of unclean equipment and dispensing techniques. The problem is compounded by the seasonality of the market (high sales volume during hot weather) and the quality of mix received by the dispensing establishment from the wholesale frozen dessert mix manufacturer, which may be having sporadic bacterial problems itself.
- e. Survey information will be gathered regarding expiration dating of milk by market milk manufacturers. Present open dating of containers to allow customer discretion at purchase is voluntary, but abuses of the system are evident in that examination of products in our laboratory show excessive bacterial counts in a high percent of cases at the dated last day of sale. This date should reflect the last day whereby the product can be assumed to have high quality given adequate handling, rather than the last day prior to onset of product spoilage. Information will be passed to subject dairies with admonishment to more completely evaluate product quality.
- f. Industry workshops will be sponsored for two groups: (1) corn meal and flour millers, and (2) retail bakeries. The intent of the workshops is to adequately familiarize the industry groups with the requirements of the food laws, discuss problem areas noted during state inspections, correctional procedures, pest habits and control, and the instigation of on-going quality control programs.

### 3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
a. Number of Inspections Performed	8,000	8,500	9,000	9,000
Number of Inspection, Survey and Complaint Samples Taken	15,500	16,000	16,500	16,500
b. Number of Pesticide Residue Analyses Performed (Food & Feed)	800	800	800	800
Violative Pesticide Residue Samples	1	2	2	2
Mold Toxin Assays Performed (Food and Feed)	315	400	400	400
Actionable Mold Toxin Samples	3	5	5	5



	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
c. Number of Consumer Complaints Investigated	360	400	425	450
Product Recalls from Market	56	60	60	60
d. Number of Soft Serve Ice Milk and Ice Milk Shake Samples Assayed	5,016	5,500	6,000	6,500
% Samples Exceeding Micro-biological Standards	29.01%	26.0%	23.0%	20.0%
e. Pending enactment of federal (likely) or state (unlikely) statutes regarding date coding, the information developed by NCDA laboratories is expected to be supplemented by that developed by fluid milk manufacturers to reflect more realistic "pull-by" dates on milk containers. Previous history indicates fluid milk operations have not systematically evaluated their products past five days shelf storage, so do not have objective data to back up the open dates now used. Evaluation by this Division will continue, so as to maintain a consistent inventory of the situation.				
f. Industry workshops are expected to more thoroughly acquaint the target industries with requirements of the State law and regulations. It is anticipated that the percentage of corn meal mills, flour mills and retail bakeries experiencing "significant" product deficiencies, as reflected in problems of rodent, insect, or bird infestations, will begin to decrease and more nearly reflect the recently-experienced lower incidence of such problems in wholesale bakeries, food storage warehouses, and soft drink bottling firms.				



Agriculture

Foods, Drugs and Cosmetics Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part A. Current Program

##### 1. Objective:

To assure that North Carolina dairy farmers are properly reimbursed for fluid milk produced.

##### 2. Strategies:

- a. Semiannual assay of individual producer milk from each market milk manufacturing plant, which samples are to be gathered at the farm level by licensed milk haulers.
- b. Licensing of all milk haulers and testers to insure properly-drawn samples which are analyzed correctly for butterfat content.
- c. Review of milk testing data submitted to NCDA by manufacturers and comparison with NCDA results for discrepancies.

##### 3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Butterfat Checktests Performed	22,500	25,000	25,000	25,000
Manufacturing Plant Paytesting Discrepancies	120	150	150	150
Hauler and Tester Licenses Issued	327	315	300	300
Hauler and Tester Licenses Refused or Revoked	4	3	3	3

Low incidence of paytesting errors is attributed to: (a) quality of assay personnel, (b) difficulties experienced by manufacturers in justifying to farmers that any testing error was "inadvertent" rather than "studied", and (c) frequency with which NCDA checks each producer milk and manufacturer results.





## Agriculture

## Foods, Drugs and Cosmetics Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To test the composition, review labeling and register all antifreezes which are to be offered for sale in North Carolina.

2. Strategies:

- a. Solicitation of previous registrants for new product registration year.
- b. Receipt and review of registration material relative to product labeling, product composition, and general conformance with requirements of N. C. Antifreeze Law of 1975.
- c. Chemical and physical assay of product for conformance to specifications outlined in the antifreeze law and regulations.

Numbers of brands and registrants have dropped precipitously. Basic manufacturers who previously produced antifreeze for various brand name distributors found ethylene glycol in short supply in 1973-74. Many brand names thus disappeared from the marketplace as the basic producers marketed their own brand names plus furnishing product to a few select customers.

3. Measures:

	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Number of brands registered	57	60	62	62
Number of registrants	51	54	56	56





## Agriculture

## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part A. Current Program

1. Objective:

To protect the beneficial biota and environment in North Carolina. To prevent the introduction and/or spread of plant pests and to insure that agricultural commodities produced in the State can be traded in national and world commerce with certification for plant pests. To protect and promote the honey and bee industry in North Carolina. To protect and improve biological control organisms and other beneficial biota through pest management, integrated and biological control, and regulation of importation, culture, and release of biological organisms. To accumulate and provide insect survey, identification, distribution, and biological data to interested citizens and provide input into biological action programs.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Plant Protection and Biological Asset Subprogram:

- a. The Division will continue to carry out plant pest and biological surveys and to cooperate with other state and national organizations in surveys to detect the presence of new pests, to ascertain the current status of pests already in the State, and to evaluate and monitor populations of beneficial organisms. Accurate plant pest surveys are the basis for all pest control actions. Honey bee disease surveys will be conducted to locate and clean up bee disease outbreaks in the State.
- b. Identification, diagnosis, and biological information are basic functions of all pest control operations. Our identification, diagnostic, consultation and control assistance service will be available for use in our pest control operations and to the public at large. Our faunal insect survey will be continued to provide an in-depth source of data on the insect populations of North Carolina. The taxonomic insect collection will be maintained for use in making identifications, by scientists and teachers, as an official repository for those needing to preserve specimens on a long term basis, as an adjunct to the State Museum, and for legally accurate identification work. Research and supportive work will be carried on in cooperation with scientists and hobbists working on entomological projects.
- c. The enforcement of plant pest laws, regulations, and quarantines serve as the cornerstone in preventing entry



and spread of plant pests. It is necessary to regulate the movement of agricultural commodities and other articles capable of spreading plant pests when they are in contact with pests in regulated situations. Plant pest regulations and quarantines need to be continually revised to reflect changes in infestation status and remedial measures applied. Pests under specific regulation in North Carolina include the imported fire ant, soybean cyst nematode, potato virus Y, white pine blister rust, witchweed and pests of vegetable plants and nursery stock. The importation of all living cultures and biological organisms will be regulated.

- d. Management, mitigation and/or eradication programs are used against new pests or when technology is available enabling meaningful results to be obtained. Biological and other integrated control techniques are used against pests which are established or entering the State by means of natural spread. When new pests invade the State as a result of long distance spread, prompt action employing environmentally sound pest control practices is taken to eliminate additional pest loads to the agrarian system. Control and suppression actions are taken which, when properly employed, can minimize spread and justify continuing expenditures.
- e. Inspections and certification procedures are the backbone in preventing the spread of plant pests. The nursery certification program insures that nursery stock produced in the State can be sold in national channels and provides a monitoring system in detecting new pest introduction as well as assuring that North Carolina citizens can buy pest free plants. Inspection of other farm commodities and certification to meet international standards provides for orderly movement of North Carolina products throughout the world. Routine inspections of sweet potato storage facilities and potatoes moving in trade channels insures that this industry is protected from pests which could drastically affect the stability of the industry. With the growth that is being experienced in all facets of the horticultural industries in the State and expansion of the export market it will be necessary to increase inspection and certification procedures.
- f. Within our evolving ecosystem we are constantly faced with new pests, new control technology, pesticide resistant strains of pests, and new survey and detection tools. New methodology is being developed, evaluated, and tried in the field for utilization in our action programs when applicable. We are working with new methodology in the areas of sex lures and pheromones, specialized pesticide application equipment, use of biological control organisms, seed germination stimulants, bee disease controls, bioactive pesticides, computerization of records and data, and integrated control strategies. A sound methods development and applications program is a very basic ingredient in the success of our Plant



## Protection and Biological Asset program.

- g. Educational and promotional programs are utilized by the Division to acquaint the general public and other agencies with plant pests and beneficial organisms. Utilizing radio, television, news articles and releases, displays, commodity group meetings, seminars, program brochures, etc., Divisional personnel seek to inform a wide audience about the Divisional programs. An informed populace serves as an additional survey tool. Many times leads from citizens are the key factor in conducting successful pest control operations. Promotional activities are carried out in cooperation with the beekeeping, nursery, christmas tree, and other small industries.
- h. The reorganization of the Pest Control Division within the last biennium has made the cross-utilization of field personnel a reality. This is not only an asset to the Plant Protection and Biological Asset subprogram but to other subprograms within the Division as well. When emergency situations develop with plant pest outbreaks or special projects are required, there is a larger pool of manpower available to accomplish the task. As has developed with all field personnel each man is assigned specific functions dealing with plant pest and biological operations within his assigned territory. This has begun to pay dividends because more people are observing potential pest situations.
- i. The Division will use community or public assistance projects as a tool in helping to attain subprogram objectives. These programs are in cooperation with organized groups that are conducting pest control activities. A series of county imported fire ant control projects have been organized to provide relief from this pest in infested counties, and assistance is given to groups engaged in biological control of the Japanese beetle using milky spore disease.

In the case of quarantined pests these projects not only provide for an orderly transfer of control responsibility to the local level but also aid in suppression and slowing the spread of the pest.

- j. Bioenvironmental laboratory and cooperative greenhouse facilities will be operated to aid in reaching subprogram objectives. The bioenvironmental laboratory is systematically rearing, releasing, evaluating and, in general, using beneficial organisms to improve our environment. The cooperative greenhouse will be utilized by several Divisions in the Department as an adjunct to reaching objectives.

### 3. Measures:

In the performance of the duties associated with the Plant Pest and Biological Asset subprogram activities, it is often difficult to offer a statistical evaluation of services rendered. Consideration



of the following information should give some idea of direct and indirect services rendered by the subprogram.

Indicators of Expected Accomplishments

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Acres Surveyed for Pest Detection	783,012	806,731	801,500	810,000	820,000
Acres Found Infested with Imported Fire Ant	90,000	95,000	100,000	120,000	130,000
Bushels Sweet Potatoes Inspected for Sweet Potato Weevil	185,000	189,000	200,000	200,000	200,000
Gypsy Moth Traps Serviced	6,500	7,000	8,000	8,000	8,000
Number Male Moths Trapped	7	5	10	12	15
New Species Insects Added to N. C. Insect Survey List	1,000	1,000	500	700	700
Honey Bee Colonies Inspected	11,000	14,000	14,000	20,000	20,000
Percent American Foulbrood Disease of Bees	0.34	0.34	0.34	0.50	0.34
Persons Given Beekeeping Assistance		20,000	20,000	30,000	30,000

Pest Control Treatments Conducted

Pesticides:

Acres Treated with Herbicide for Witchweed	70,000	100,000	100,000	150,000	200,000
Imported Fire Ant Mounds Treated	1,175,000	1,190,000	2,000,000	1,500,000	1,500,000
Nurseries Receiving Certification Treatments	300	330	200	200	200

Pest Control Treatments Conducted

Biological Agents:

Acres Treated With Ethylene for Witchweed Control	12,000	15,000	20,000	30,000	40,000
Number Parasites Released for Gypsy Moth Control	75,000	124,000	100,000	100,000	100,000

1974-751975-761976-771977-781978-79

Japanese Beetle Control  
 Milky Spore Disease  
 Treatment Sites

100

250

250

250

Specimens Screened in Port  
 Survey and Beneficial Insect  
 Evaluations

20,000

20,000

20,000

30,000

Inspections and Certifications

Transit Inspections Made

3,000

3,500

4,000

4,500

4,500

Nurseries and Dealers  
 Certified

2,900

3,100

3,300

3,400

3,550

Export Phytosanitary and  
 Import Postentry Inspections  
 Made

910

1,000

1,200

1,400

2,000

Vegetable Plants Inspected

1,500,000

1,700,000

1,800,000

1,800,000

1,800,000

Bee Colonies Inspected  
 for Pesticide Poisoning

1,000

400

400

400

400

Plants Inspected for Shipment

490,000

500,000

525,000

545,000

560,000

Service and Support Activities

Identifications (Insects, Plant  
 Disease, Plants and Informational  
 Services)

6,000

11,000

11,000

13,000

15,000





## Agriculture

## Structural Pest Services Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To provide citizens of North Carolina with high quality and efficient structural pest services by insuring effective industry performance and preservation of environmental quality.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Structural Pest Services Subprogram:

- a. Existing regulatory programs will be diversified and expanded to cover all phases of structural pest control work. Diversification and expansion are essential in order to provide services which are more responsive to the needs of the citizenry of North Carolina.
- b. The present routine inspection system of wood-destroying insect work will be revised in order to provide broader industry coverage and more effective consumer protection. More comprehensive inspection techniques will be utilized in this program. These techniques will provide additional data for measuring and evaluating work quality.
- c. Additional emphasis will be on drawing and analyzing soil samples from dirt-filled concrete slab areas in order to reduce the deficiency in toxic chemicals and eliminate inadequate treatment of these areas. Regulation of chemical applications under dirt-filled slab areas is essential because these areas are focal points for termite entry into the structure.
- d. An inspection program for wood-decay fungi treatments will be developed and implemented by the Pest Control Division. This program will eliminate faulty and unnecessary service in this area and save homeowners of North Carolina thousands of dollars annually.
- e. The regulation of household pest control work will be improved and expanded to provide maximum consumer protection. Routine inspections will be made of rodenticidal bait containers and their placement. Primary emphasis will be on the surveillance of pesticide applications inside structures.
- f. The regulation of fumigation work will be expanded and accelerated to cover all phases of the fumigation operation. Mandatory submission of advance notice of residential fumigation will provide an opportunity for inspection of

premises to assess the need for this type of operation. These regulatory activities will reduce unwarranted fumigation operations and provide substantial savings to the homeowners of this state.

- g. This agency will maintain intensive surveillance of industry's selection, usage, storage and disposal of pesticides in order to prevent indiscriminate and misuse of pesticides and protect environmental quality. Additional inspections will be performed on service vehicles and application equipment to insure that pesticides can be transported and applied safely.
- h. This agency will continue to work jointly with other governmental agencies in the development and implementation of training programs for industry. Periodic federal and state statutory changes governing pesticide usage dictate the need for continual modifications in testing programs to determine operator's competency to use pesticides.
- i. The Structural Pest Services Subprogram will cross-utilize all available resources and personnel within the plant protection and biological asset and pesticide subprograms in order to promote and maintain operational efficiency.
- j. Comprehensive training programs will be developed for regulatory personnel in order to broaden and increase their capacity to deal with consumer problems. Cross-training will be conducted to permit more effective utilization of personnel.
- k. Accelerated efforts will be employed to achieve greater consumer awareness of the availability of program services and the benefits to be derived from these services. Considerable emphasis will be on technical and consultative services to assist the homeowner in selection of the most beneficial industry services.
- l. The Structural Pest Subprogram will work jointly with industry, the Structural Pest Control Committee and other governmental agencies in the development of regulations needed to meet new federal and state statutory requirements and the implementation of programs necessary to carry out the purpose and intent of these regulations.

### 3. Measures:

There are no criteria to effectively measure and evaluate the full impact and monetary value of structural pest services. Services provided by the current Structural Pest Subprogram have resulted in an improvement of industry's work performance in some areas; however, the subprogram must be maintained and broadened to cover all phases of work. Strengthening of the program is essential in order to meet and fulfill the needs of an expanding population and to maintain a desirable environment for man and animals.



The following information indicates the type of services provided  
by the Structural Pest Services Subprogram:

	<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Number persons licensed	317	354	370	392	410	430
Number employees registered	998	1367	800	810	836	870
Number persons certified				200	300	425
Number of wood-destroying insect jobs inspected	3398	2180	3165	4170	4170	4170
Percent of jobs with major discrepancies	19%	19%	18%	17%	17%	17%
Percent of jobs with major and minor discrepancies	30%	42%	35%	30%	30%	30%
Number soil samples tested	2601	2592	3380	4172	4172	4172
Percent of samples deficient	8%	8%	8%	7%	7%	7%
Number consumer requests examined	785	808	832	857	857	857
Number persons convicted of violating law	4	2	1	1	1	1
Number licenses suspended or revoked	1	4	6	5	5	5
Number fumigation operations checked	2	1	3	50	50	50
Percent of operations not in compliance	0%	0%	0%	10%	10%	10%
Number fogging operations checked	0	0	10	25	25	25
Percent of operations not in compliance	0%	0%	25%	30%	30%	30%
Number household pest jobs checked	2	2	75	125	125	125
Percent of jobs not in compliance	50%	50%	55%	60%	60%	60%
Number wood-decay fungi jobs inspected	0	0	150	325	325	325
Percent of jobs substandard	0%	0%	50%	75%	75%	75%



The continual increase in licensed operators and the initiation of a program to certify persons who use restricted-use pesticides reflect the need for additional personnel to handle the increased work load generated by industry growth. Current staffing of the Structural Pest Services Subprogram does not permit effective Regulation of existing household pest control and fumigation service work. The demands for technical and consultative services cannot be met due to insufficient personnel.

The services provided by the Structural Pest Subprogram are beneficial to both industry and the consumer. State inspections, minimum state work standards, and penalties for substandard work provide the consumer a recourse for improper industry service, without resorting to court action, and prevent unnecessary delays in the implementation of corrective action by industry. These factors help upgrade service expertise to a more professional level and develop public esteem necessary for adequate industry performance.

## Agriculture

## Pesticide Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part A. Current Program

1. Objectives:

To regulate pesticides as required by the N. C. Pesticide Law of 1971 by assuring that the disposal, storage, quality, and labeling of pesticides is in accordance with the Law and Regulations, and by assuring that regulated Pesticide Applicators, Dealers, and Consultants, who use, sell, or recommend pesticides are determined competent prior to licensing, thereby promoting a safer, healthier, and more secure environment.

2. Strategies:

Administrative functions will be handled by pesticide staff located in Raleigh with field enforcement and inspection activities being supervised and coordinated through Eastern, West Central, East Central, and Western Regional Offices.

The following will be used to accomplish the objectives of the Pesticide Subprogram:

- a. Upon receipt of an application for registration and \$25.00 registration fee, each of the projected 6,800 pesticide labels will be reviewed to determine if each label contains appropriate information or declaration such as appropriate ingredient statement, adequate directions for use, use limitations, appropriate warning concerning potential adverse effects involving man, wildlife or the environment, harvest restrictions, antidote statement or first aid measures, etc.
- b. Trained inspectors and enforcement personnel will review labels of insecticides, fungicides, herbicides, germicides, nematocides, etc., marketed in state to detect obvious label violations. Products will be sampled at the point of manufacture, storage, sale, and use by applicators for assay.
- c. Pesticide samples will be submitted to the Department's Pesticide Laboratory for analysis. Samples taken at the point of manufacture, storage, and sale are analyzed to determine if the contents are within allowable deviations from the guaranteed analysis and to assure that they do not contain undesirable contaminants. Samples obtained from pesticide applicators, including farmers, are analyzed to determine if they are being applied in accordance with the directions for use.



- d. Stop-Sale Orders and/or seizure of misbranded or adulterated products and assessment of monetary penalties will be initiated against violators.

Pesticide applicators using pesticides not in accordance with label directions and consultants or other individuals making recommendations not in accordance with pesticide label are subject to being determined guilty of a misdemeanor.

- e. Maintenance and revision of a "Restricted-Use List" of pesticides; i.e., those materials that are determined either so potentially toxic to man or other forms of life, other than those for which the product is intended to control, or so environmentally contaminative as to preclude use without certain restrictions. Any person selling such products to the end user is defined as a Pesticide Dealer.
- f. All Pesticide Dealers, Pesticide Applicators, including public operators, and Pest Control Consultants will be tested to determine competency. All qualifying individuals other than those employed by governmental agencies will pay the \$25.00 license fee. We will coordinate the testing of applicants with N. C. State University who is responsible for their training.
- g. Field enforcement and inspection personnel will make mandatory inspections of all aircraft used for aerial application of pesticides. (\$10.00 inspection fee) In addition, random inspections will be made of ground pesticide application equipment. Any such equipment that cannot be properly calibrated or could present undue hazard to the user, nontargets or the environment would not be approved for use until proper adjustments are made.
- h. Due to the extremely large number of small containers used by some groups such as cotton spray cooperatives formed within the State, which created tremendous container disposal problems, a regulation allowing use of bulk containers has been approved. Inspection of operations includes assuring that the container meets rigid specifications, has appropriate security, is located on site capable of accommodating ruptures, without creating unacceptable adverse effects, etc.
- i. Accidents, incidents, or emergencies involving pesticides will be responded to. Steps will be taken to minimize any potential or adverse effects to man or his environment. Such incidents will be thoroughly investigated to determine what steps should be taken, if any, to avoid future occurrences such as a change in pesticide labeling, establishment of a regulation to make certain practices illegal, etc.
- j. Steps will be initiated to hold hearings regarding cancellation of pesticide formulations when the registrant fails or refuses to



comply with the provisions of the Law or Regulations or upon satisfactory proof that the registrant has been guilty of fraudulent and deceptive practices in the evasions of the provisions of the Law or Regulations.

Steps will also be initiated against individuals licensed to use, sell, or recommend pesticides if they are engaged in practices not in compliance with the Law or Regulations.

- k. As determined necessary, the staff will continue to draft or assist in drafting proposed regulations and revisions in order to fully implement the authorities established by Law and to maintain adequate regulatory control of pesticides.
- l. We will continue to actively participate in the drafting of regulations, revision of existing regulations, and comments regarding those not intimately involved with being considered by the Environmental Protection Agency which is responsible for regulating pesticides at the federal level. This will continue to be in the best interest of North Carolinians in that such regulations can have major impact on all aspects of State Regulatory Control.
- m. We will maintain records, minutes, and information regarding the actions of the Governor-appointed North Carolina Pesticide Board and the Pesticide Advisory Committee and continue to assist in establishing Agenda, meeting dates, hearings, etc.

### 3. Measures:

It is our opinion that every household, business and social entity in N. C. is affected by the pesticide program to some extent in that all pesticide formulations; i.e., home insect sprays, weed killers, rat poisons, bleaches with germicidal claims, etc., are randomly sampled and analyzed to assure proper contents and the labels of these products are carefully reviewed to make sure correct information is contained thereon. We estimate that approximately thirty percent(30%) of the pesticides manufactured are used in or around the home, by government agencies or industry other than agriculture.

Seventy percent(70%) of the pesticides manufactured are used by the farming industry which includes approximately 125,000 working farms. Therefore, our program ultimately affects all individuals involved in the production of food and fiber.

Our programs also have a great deal of effect among the following:

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
(1) Total number of pesticide manufacturers	666	753	775	780	810
Total number of pesticide manufacturers from N. C.	90	96	90	95	100
(a) Pesticide labels registered	5,779	6,520	6,800	7,100	7,300
(b) Pesticides sampled and analyzed, including use and crop samples	2,817	2,967	2,975	2,990	3,100

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
(c) Number of analytical determinations	5,375	4,989	5,000	5,025	5,045
(d) Pesticides placed under stop-sale orders due to being determined not registered, deficient, misbranded, or adulterated	353	519	500	520	535
(2) Accident, incident or emergency investigations	65	71	75	75	80
(3) Aerial pesticide applicator equipment inspections	129	123	125	125	130
(4) Pesticide bulk storage tank inspections	25	22	22	25	35
(5) Licenses issued					
(a) Pesticide dealer licenses	1,631	1,618	1,600	1,625	1,640
(b) Ground pesticide applicator licenses	810	803	900	935	950
(c) Aerial pesticide applicator licenses	139	145	150	150	155
(d) Governmental pesticide applicator licenses	399	501	600	610	625
(e) Pesticide consultants licenses	41	40	40	40	43



## Agriculture

## Animal Health Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To control and eradicate animal diseases for the protection of human health, the protection of the livestock and poultry industries, and to assure the consumer of receiving the highest quality of animal products possible.

2. Strategies:

The strategies which will be used to accomplish the objectives of the Animal Health Subprogram are as follows:

- a. All livestock markets in the State are licensed under this program upon recommendation of the Livestock Market Advisory Board. Licenses are issued on the basis of proposed facilities meeting necessary sanitation requirements. A program of inspection and supervision will be maintained over all such markets.
- b. Livestock markets are required to be bonded and must subscribe to certain management practices for the protection of the livestock industry of the State of North Carolina. Market records will be checked periodically by livestock inspectors to insure compliance.
- c. Rules and Regulations concerning the transporting of animals will be enforced at all levels of trade. This is essential in the prevention of diseased animals from being transported and infecting other animals.
- d. Regulations relating to the entry of livestock into our State from other States are developed and enforced. Interstate health regulations will be stringently enforced to prevent infected and diseased animals from entering North Carolina.
- e. Feeders of edible garbage are required to be licensed. The premises and facilities of these feeders will be inspected regularly to see that this material is properly cooked and fed under prescribed sanitary conditions. The cooking requirement will be enforced to prevent disease organisms from being carried through raw pork to other animals. This also has the effect of controlling certain human diseases.
- f. Specific disease eradication programs will be carried on jointly with the USDA. These include periodic testing and elimination of diseased animals. The diagnostic laboratory system will be used for diagnosing animal diseases including those of poultry.



This service will be made available to effect rapid diagnosis of disease where it is difficult or impossible for a practicing veterinarian to do so. These facilities are located in strategic areas of the State in order to give the most rapid possible diagnostic service. In many cases, time is extremely important in eliminating a disease problem that could result in great economic loss. These services are particularly important where animals apparently have been poisoned or have a contagious disease.

- g. Chicken and turkey hatcheries will be licensed and inspected to prevent the spread of poultry diseases. This service is necessary in preventing the very rapid spread of certain poultry diseases caused by insanitary conditions.
- h. Breeder flocks of chickens and turkeys will be tested for pullorum and other contagious fowl diseases. This will be done to prevent the spread of these diseases through hatcheries and on to other farms.
- i. A licensing and inspection program will be carried out with rendering plants to insure that livestock diseases are not spread through the handling and processing of dead animals and animal products.

### 3. Measures:

No one measure adequately reflects the effectiveness of the Animal Health Subprogram. However, those listed below taken together give a good overall view of activities within the division with respect to the services provided.

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Serological Testing					
Brucellosis	142,088	163,000	200,000	200,000	200,000
Pullorum-Typhoid	568,303	600,000	600,000	600,000	600,000
Mycoplasmosis	648,543	600,000	600,000	600,000	600,000
Anaplasmosis	3,598	5,000	5,000	5,000	5,000
Leptospirosis	55,235	60,000	60,000	60,000	60,000
Equine infectious anemia	31,414	12,000	14,000	14,000	14,000
Other	131,675	140,000	140,000	140,000	140,000
Virological examinations	3,999	4,000	4,000	4,000	4,000
Bacteriological examinations	30,413	32,000	34,000	34,000	34,000
Parasitological examinations	13,707	14,000	14,000	14,000	14,000
Chemical examinations	1,928	2,200	2,400	2,400	2,400
Histopathological examinations	23,632	24,000	26,000	26,000	26,000
Miscellaneous examinations	2,902	3,000	3,000	3,000	3,000
Post mortem examinations					
Swine	1,296	1,300	1,300	1,300	1,300
Cattle	779	800	800	800	800
Horses	134	200	200	200	200
Dogs	324	350	400	400	400
Chickens	15,119	16,000	16,000	16,000	16,000
Turkeys	4,373	6,000	6,000	6,000	6,000
Other	864	1,000	1,000	1,000	1,000

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Field Investigations of Disease					
Outbreaks and Law Violations	4,214	4,500	4,700	4,700	4,700
*Livestock Market Inspections	3,633	4,000	4,000	4,000	4,000
Inspections of Garbage Feeding					
Operations	5,947	7,000	7,000	7,000	7,000
Cattle bled for Brucellosis Test	17,431	18,500	20,000	20,000	20,000
Cattle tested for Tuberculosis	2,705	3,000	3,000	3,000	3,000
Pit Inspections (dead poultry disposal)	2,260	2,500	2,500	2,500	2,500
Hatchery Inspections	79	150	150	150	150

\*Includes horse shows and fair inspections





## Agriculture

## Meat and Poultry Inspection Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

Insure a wholesome meat and poultry product for the consumers of North Carolina and protect the legitimate slaughterer and processor.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Meat and Poultry Inspection Subprogram:

- A. The operation of the Meat and Poultry Inspection Program which is a regulatory function will continue in the next biennium without any major change. Ante-mortem, post-mortem, processing, reinspection, waste control, inedible and condemned products control, product labels control, and sanitary facilities and equipment inspections will continue on a daily basis in the 412 packing plants now under inspection.
- B. The compliance staff will continue to review establishments which store, transport or hold meat and poultry products for sale for possible illegal sales of uninspected, adulterated or misbranded meat and poultry products.
- C. The effectiveness of the program will be monitored by the Federal Government by plant reviews on a quarterly basis. This program is a cooperative effort with the USDA on a 50-50 fund sharing basis. The operation of this cooperative program will also be subject to operational and fiscal audit by the Federal Government.
- D. Training will continue on an on-the-job basis by in-house instructors, and twenty inspectors will receive formal training in Federal training schools.
- E. A Federal-State residue monitoring program is in effect. Sampling is being accomplished on a statistical basis with plants for sampling designated by computer in Washington. The program is designed to reduce drastically the number of samples a state would have to take in order to be statistically accurate were it to operate an independent program. The cost of the program will not significantly affect the budget.

3. Measures:Indicators of Expected Accomplishments

	1973-74	1974-75	1975-76	1976-77
Plants requiring inspection (Ante- and Post-mortem, processing, sanitary surveillance)	333	372	409	415
Animals and Poultry Inspected and Passed	11,926,472	10,157,377	10,511,704	11,037,289
Animals and Poultry Inspected and Condemned	119,324	77,204	91,458	96,030
Reinspection Processed Meat and Poultry				
Passed	194,934,757	198,837,859	215,647,268	226,429,631
Condemned	905,454	987,558	1,056,388	1,109,207
	1977-78	1978-79		
Plants requiring inspection (Ante- and Post-mortem, processing, sanitary surveillance)	430	444		
Animals and Poultry Inspected and Passed	11,589,153	12,168,610		
Animals and Poultry Inspected and Condemned	100,833	105,874		
Reinspection Processed Meat and Poultry				
Passed	237,751,112	249,638,667		
Condemned	1,164,667	1,222,900		



## Agriculture

## Weights and Measures Subprogram

## III. Plan for The Biennium

## Part A. Current Program

1. Objective:

To provide a protection service so that the buyer and seller are both protected as to the quantity involved in all commercial transactions.

2. Strategies:

- a. The subprogram will continue to maintain a Metrology Laboratory auditing program in cooperation with the National Bureau of Standards for annual certification by the Bureau so that the North Carolina primary standards of weight, length and volume, and the instruments used in obtaining comparison are traceable to the National Standards.
- b. This subprogram will continue to conduct tests and/or calibrations for weight, measure, length and temperature at the Metrology Laboratory and provide certification of traceability to the National Standards via the primary standards of North Carolina for all working standards used by the inspectors in this subprogram; for all scale, pump, and meter servicemen, and any other person, firm, corporation or agency needing this service.
- c. The subprogram will continue its policy of close cooperation in providing technical advice and assistance to industry, State, Federal, and local agencies with respect to problems associated with quantity control and value determinations.
- d. An education program utilizing all modes of communication will be used to acquaint and assist in educating the public concerning weights and measures requirements and the services offered by the subprogram. Emphasis in this program during this Biennium will be directed toward metrication.
- e. Prototype examination and test of new design models and systems of weighing and measuring devices will continue to ensure that manufacturers are complying with the specification and tolerance requirements and that the design incorporates provisions to eliminate fraud perpetration.
- f. The continuation of periodic unannounced visits to wholesale and retail outlets for the purpose of examination and test of weighing and measuring devices will be made. Equipment examination and test results will be reviewed with respect to legal requirements. Equipment which complies with legal requirements will be sealed to indicate, and equipment which fails to comply will be rejected and appropriate follow-up action taken.



- g. A comprehensive program of package checking will continue at wholesale and retail outlets to ensure that commodities are properly packaged and labeled to prevent deception and to ensure that the packaged net quantity content agrees with the net quantity statement on the label. Appropriate legal action will be taken for packaged commodities which are not in compliance.
- h. During seasonal periods when tobacco and grain crops are being marketed periodic unannounced visits will be made to marketing establishments for the purpose of testing weighing devices and for assurance that weighmasters are utilizing correct weighing procedures and that commodities which have been weighed and are awaiting sale have been weighed properly.
- i. We will continue our present program of petroleum vehicle tank calibration at the Central Facility in Raleigh using either the volumetric or gravimetric determinations as required by each individual unit, and the examination of each tank, its fill and discharge arrangement, and the valves, piping, and metering system for compliance with design specifications as required by law.
- j. The subprogram will continue the examination and tests of gravity flow and pressure operated meters. Meters which are accurate are sealed and meters which are inaccurate are rejected and appropriate follow-up action is taken.
- k. The continuation of the policy of immediate investigation of any complaint received in regards to short weight or measure will continue and if warranted appropriate legal action taken.
- l. The subprogram will continue the policy of testing concrete masonry units for load bearing strength with appropriate action taken when failure to meet legal requirements are found.
- m. The subprogram will continue the policy of prototype examination and test of new design tobacco curing units and the inspection of such installed units for compliance with required specifications.
- n. The subprogram will continue the testing of liquid fertilizer meters. Meters which are accurate will be sealed to indicate such, and meters which are inaccurate will be rejected with appropriate follow-up action taken.
- o. The subprogram will continue to make site plan approvals for all new liquid fertilizer facilities.
- p. The subprogram will continue to make site plan approvals for all anhydrous ammonia facilities before construction begins and will make an inspection of these facilities after construction is completed to ensure that compliance with all applicable safety codes has been adhered to.
- q. The testing of L.P. Gas liquid and vapor meter systems will continue to be made at the Central Laboratory in Raleigh. Metering systems which are accurate within required tolerance limits are sealed; meters which are inaccurate are rejected and appropriate follow-up action taken.



- r. On an individual request basis, we will continue the program of examination and test of all liquid feed supplement meters.
- s. The subprogram will continue to maintain an employee cross-training and educational program designed to achieve maximum utilization of personnel and equipment in all areas of the program responsibility.
- t. The subprogram will continue to register on an annual basis all scale technicians who have complied with the requirements of the North Carolina Weights and Measures law.

### 3. Measures:

In view of the many and varied types of commercial transactions which occur within the market place daily it is difficult to place a monetary value on the savings per person or on a per transaction basis. However, if North Carolina is to continue to fulfill its responsibilities to the consuming public in ensuring that equity prevails between buyer and seller, the Weights and Measures regulatory program must be provided for.

The following information will provide some idea of the extent of the services provided by this subprogram.

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Weighing Devices Tested	32,426	34,500	35,000	37,000	38,000
Packages Checked	456,664	470,700	480,000	490,000	500,000
Weights Tested and/or Calibrated	37,831	38,000	39,000	47,000	50,000
Liquid Measures Tested and/or Calibrated	865	950	1,050	1,100	1,300
Cucumber Graders Tested	531	750	760	775	780
Special Investigations Conducted	233	240	250	260	270
Linear Measuring Devices Tested	6	13	15	20	20
Liquid Feed Supplement Meters	0	6	20	75	100
Petroleum Vehicle Tanks Calibrated	96	128	150	300	350
Petroleum Meters Tested and/or Calibrated	66	103	130	140	150
L.P. Gas Vehicles Inspected For Safety	98	128	150	175	200
L.P. Gas Meters Tested and/or Calibrated	98	128	150	175	200
Vapor Gas Meters Tested	3	6	20	25	35
Miscellaneous Tests Conducted (water meters, provers, etc.)	11	16	20	25	25
Scale Technician's Registered	150	158	160	160	160
Concrete Blocks Tested for Load Bearing Strength	100	100	100	100	100
Taxi Meters	66	123	130	140	140

The actual and projected increase in the subprogram workload indicates a continuing trend that additional services are being demanded.





## Agriculture

## Gasoline and Oil Subprogram

## III. Plan for The Biennium

## Part A. Current Program

1. Objective:

To provide a superior program for the citizens of North Carolina to ensure that; motor fuels and other petroleum products offered for sale are of such quality that the consuming units will, if in sound mechanical condition, perform at the optimum level intended by the manufacturer; that the measuring systems used to determine the quantities of petroleum products sold are accurate; that they are properly used; and that minimum safety measures are provided for the moving, handling, and storage of liquefied petroleum gases.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Gasoline and Oil Subprogram:

- a. The subprogram will continue to maintain standardization procedures in a nationwide cooperative program coordinated by the American Society for Testing and Materials designed to ensure that instrumentation and analytical procedures used in the central laboratory and in the mobile laboratories are maintained within A.S.T.M. certification requirements.
- b. Volumetric and gravimetric petroleum tank calibration services at the Central Laboratory Facility in Raleigh and volumetric services at the Wilmington Calibration Station, and the test and adjustment of gravity flow meters at the Central Calibration Facility in Raleigh will be continued.
- c. The subprogram will continue to maintain an employee educational program designed to upgrade employee educational levels, analytical skills and measurement technology.
- d. The subprogram will continue to periodically update standard analytical, measurement and safety programs and adopt new procedures within the provisions of authorizing statutes and regulatory authority in order that the subprogram will remain abreast of the latest quality, measurement and safety standards dictated by a combination of user requirements and manufacturing techniques and capabilities.
- e. A cooperative program in conjunction with the local and National L.P. Gas Association will be maintained in order to coordinate L.P. Gas safety standards with those adopted by Federal Agencies.

- f. An educational program utilizing the news media and other modes of public contact will be maintained to acquaint the citizens of North Carolina with the services offered by this subprogram.
- g. Samples of petroleum products offered for sale at the retail level will be routinely taken from all outlets in the state. Basic contamination tests will be performed on a portion of the total samples in the mobile laboratories, and samples sent to the Central Laboratory will be subjected to comprehensive analytical procedures for octane rating, distillation range, lead content, sulphur content, residual gum, vapor pressure, vapor liquid ratio, corrosion characteristics, phosphorous content, octane number, viscosity, flash point, hydrocarbon distribution, carbon residue, gravity, water sediment and related procedures. Results of tests will be interpreted with respect to legal requirements for all specifications and appropriate action taken.
- h. The registration of Petroleum Device Technicians, L.P. Gas Dealers, and the branding of all Gasoline will continue. The branding of all Diesel fuels will begin.
- i. Periodic unannounced visits to wholesale and retail outlets for the purpose of examination and tests for device specification and accuracy requirements on petroleum metering systems, for correct device marking, for tank calibration requirements, piping arrangements and for the proper sealing of adjusting mechanisms will be continued.
- j. Prototype examinations and tests of new design measuring device models and systems will continue to ensure that manufacturers are complying with design specifications and tolerance requirements and that the design incorporates provisions to eliminate fraudulent perpetration.
- k. The subprogram will continue to act in an advisory capacity to industry, state, federal, and local agencies with respect to quality measurements, and safety standards for petroleum products sold in North Carolina.
- l. Special request samples will be taken as necessary or as submitted to the laboratory. Results will be interpreted and appropriated action taken on those request samples taken by authorized personnel and information as to analytical results will be furnished to persons, firms, corporation, or agencies submitting private samples.
- m. The subprogram will continue the present policy of immediate investigation of any complaint received in regards to the inaccurate measurement of petroleum products or the unsafe handling and storage of L.P. Gas. All L.P. Gas accidents will be immediately investigated and complete reports of these accidents will be maintained.
- n. Continue the present program of prior site plan approval of all L.P. Gas Bulk Plant installations and final on-premises inspection of completed facilities.



- o. The present program of examination and tests of L.P. Gas liquid and vapor measuring devices in the field and at the central facility will be continued.
- p. The examination for correct installation and equiptage of safety devices will continue to be made on all domestic, commercial, and agricultural L.P. Gas installations.
- q. The present program of witnessing and verification of hyrostatic testing of all L.P. Gas transport vehicles will be continued.
- r. The present program of inspection of L.P. Gas appliances for compliance with the American Gas Association Code will be continued.
- s. The subprogram will continue to cross-utilize all equipment and personnel for achieving maximum efficiency and productions.

### 3. Measures:

Management practices have been implemented in this subprogram to provide for full utilization of personnel and equipment in order that maximum services within our present capability are provided efficiently and economically. The following statistical information will provide some idea of the extent of the services provided.

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
<u>Registrations</u>					
Gasoline Brands	1200	1300	1500	1650	1800
Diesel Brands	Not Branded	Not Branded	200	350	500
Petroleum Device Tech.	460	480	500	525	550
L.P. Gas Dealers	720	725	740	760	800
<u>Petroleum Products Testing</u>					
No. of Commercial Outlets in State	19000	19250	19500	19750	20000
No. of Samples	45236	45000	46000	47000	47000
<u>No. of Determinations</u>					
<u>Mobile Units</u>					
Distillation	21747	22000	22000	22000	22000
Flash Point	3805	3200	3200	3000	3000
Water (Visual)			25200	25000	25000
<u>Central Laboratory</u>					
Octane	19650	19000	39000	40000	40000
Distillation	29592	19000	19500	20500	21000
Gum	17380	10000	12000	12000	12000
Lead			6000	7500	7500
Sulphur			6000	7500	7500
Cetane			3000	3500	4000
Phosphorous			1000	1500	1800
Carbon Residue			1000	1200	1500



	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Vapor Pressure			500	500	600
Vapor/Liquid Ratio			1000	1200	1400
Viscosity			500	750	750
Gravity			500	750	750
Corrosion			500	500	500
Comp. by Chromatography			3000	3500	4000
Water & Sediment Visual			20000	20500	21000
Centrifuge			500	600	700

NOTE: The projected workload as indicated for 1976-77 is based on an estimated division of analytical assignments among laboratory personnel when new specifications become effective 7/1/76. Adjustments will be made as necessary. The projections for the 1977-79 biennium are predicated on Plan for the Biennium - Part B.

	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
<u>Petroleum Measuring Service</u>					
<u>Testing</u>					
Gasoline & Diesel Pumps					
Tested	91,146	100,000	100,500	101,000	101,500
Kerosene & Lubricating					
Oil Pumps Tested	9,758	9,820	9,900	9,900	9,900
Petroleum Vehicle Meters					
Tested	6,058	7,926	8,300	8,500	8,500
Wholesale Meters Tested	200	300	350	400	400
Petroleum Vehicle Tanks					
Inspected	4,100	4,300	4,500	4,700	5,000
Petroleum Terminal Meters				200	350

NOTE: The actual and projected increase in workload indicates a continuing trend that additional services are being demanded for test of devices used in the determination of quantity.

L.P. Gas Measuring Device Testing  
& Inspection

L.P. Gas Meters Tested					
& Vehicles Examined	810	908	995	1,095	1,155
L.P. Gas Safety					
Inspections	4,415	4,450	4,475	4,475	4,475
L.P. Bulk Storage Plant					
Facility Approvals	109	107	95	115	125

Seed Inspection Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objectives:

To provide surveillance of seeds offered to citizens of North Carolina, to enforce truthful representation of seed quality and to provide high quality service to the North Carolina Seed Industry, the Seed Certification Program and seed producers in their efforts to provide the highest quality seed possible for more efficient agricultural production.

2. Strategies:

a. The division will continue to survey the general conditions of specific crops and vegetables species, and establish inspection priorities based on anticipated weaknesses apparent at any given time.

b. Analyses for detection of contamination, biochemical evaluations and regular germination tests will be provided for inspectors samples, certified samples, farmers samples and seedsmens samples.

c. Response to farmer and seedsmens complaints will continue to be reviewed with the objective of assisting farmers who allege they have been damaged because of the failure of seeds to perform as represented.

d. Cooperation will be continued with the U. S. Department of Agriculture in the enforcement of the Federal Seed Act, N.C. Department of Transportation and other state agencies in inspection and testing seeds purchased on state contract, N.C. Crop Improvement Association in the evaluation of certified seeds and N.C. State University in the testing of seeds for research and educational objectives.

3. Measures:

Inspectors now scrutinize as many lots as they can and submit official samples of as many lots as our resources are designed to handle. Submitted samples from sources other than inspectors may vary somewhat, due to anticipated seed demand, seed problems due to specific weather or disease reactions on a given crop, or other reasons such as increased emphasis on home gardens and other seed used.

The net effect, however, has been increasing number of samples for the past several years. In 1975-76, the laboratory received a record 30,070 samples. There is every reason to expect sample numbers to continue at approximately the same number during the 1977-79 biennium.

Expected operational level:

	74-75	75-76	76-77	77-78	78-79
Lots inspected	12,112	12,596	12,000	12,000	12,000
Official samples submitted	2,953	2,369	2,400	2,400	2,400
Service and Interagency samples	27,007	27,701	27,600	27,600	27,600
Analyses made	37,901	38,111	38,000	38,000	38,000



Final Report - Summary

1. Introduction

The purpose of this report is to provide a summary of the findings and conclusions of the research project. The project was conducted over a period of six months, during which time a series of experiments were carried out to investigate the effects of various factors on the rate of reaction between hydrogen peroxide and potassium iodide.

The results of the experiments show that the rate of reaction is affected by the concentration of the reactants, the temperature of the reaction mixture, and the presence of a catalyst. The rate of reaction increases with increasing concentration of the reactants and with increasing temperature. The addition of a catalyst, such as potassium iodide, significantly increases the rate of reaction. The results of the experiments are discussed in detail in the following sections of the report.

2. Methodology

The experiments were carried out using a series of standard solutions of hydrogen peroxide and potassium iodide. The concentration of the reactants was varied in a series of experiments, and the rate of reaction was measured using a colorimetric method. The temperature of the reaction mixture was also varied, and the effect of a catalyst was investigated. The results of the experiments are presented in the following sections of the report.

3. Results and Discussion

The results of the experiments show that the rate of reaction is affected by the concentration of the reactants, the temperature of the reaction mixture, and the presence of a catalyst. The rate of reaction increases with increasing concentration of the reactants and with increasing temperature. The addition of a catalyst, such as potassium iodide, significantly increases the rate of reaction.

The results of the experiments are discussed in detail in the following sections of the report. The effect of concentration on the rate of reaction is discussed first, followed by a discussion of the effect of temperature. Finally, the effect of a catalyst is discussed.

Table 1: Rate of reaction between hydrogen peroxide and potassium iodide at different concentrations of reactants.

Concentration of H <sub>2</sub> O <sub>2</sub> (mol/L)	Concentration of KI (mol/L)	Rate of reaction (s <sup>-1</sup> )
0.1	0.1	0.01
0.2	0.1	0.02
0.3	0.1	0.03
0.4	0.1	0.04
0.5	0.1	0.05
0.6	0.1	0.06
0.7	0.1	0.07
0.8	0.1	0.08
0.9	0.1	0.09
1.0	0.1	0.10



Fertilizer Inspection Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part A. Current Program

1. Objectives:

To approve the registration of only those mixed fertilizer and fertilizer materials that meet the agricultural needs of the state, and to sample those products offered to assure they meet the label guarantee and are otherwise truthfully represented.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Fertilizer Inspection Subprogram:

- a. License fertilizer manufacturers
- b. Register fertilizer products, lime and mixed fertilizer which meet the needs of North Carolina fertilizer users, and which meet the criteria established under the Lime Law, Fertilizer Law, and the Regulations promulgated under those laws.
- c. Collect samples of lime and fertilizer products and have analyzed for compliance with requirements of the laws and regulations.
- d. Assess penalties on samples with deficient analyses.
- e. Publish annual fertilizer report.
- f. Investigate complaints of consumers.

3. Measures:

Indicators of expected accomplishment will be revealed in the statistics of work shown in the following categories:

<u>Item</u>	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Average number of employees	31	32	32	32	32
Products registered	3,400	3,500	3,500	4,000	4,500
Inspections made	4,497	5,000	5,000	5,000	5,000
Official samples obtained	9,350	10,300	11,000	11,000	11,000
Unofficial samples obtained	10	10	5	5	5
Official liming materials and landplaster samples obtained	371	350	350	350	350
Analytical determinations	89,011	90,000	90,000	90,000	90,000
Adulterated samples	2,886	2,900	3,000	3,000	3,000
Stop sales issued	74	100	200	200	200
Samples penalized	1,943	2,100	2,150	1,800	1,800
Total amount of penalties assessed	\$403,869	\$500,000	\$450,000	\$475,000	\$500,000
Amount paid users	\$115,693	\$130,000	\$120,000	\$125,000	\$130,000
Amount imprest	\$288,176	\$370,000	\$330,000	\$350,000	\$370,000
Total fertilizer tonnage sold	1,824,708	2,000,000	2,000,000	2,000,000	2,000,000
Total liming materials and landplaster sold (tons)	1,326,152	1,500,000	1,500,000	1,700,000	1,700,000



## Agriculture

## Division of Research Stations Subprogram

## III. Plan for the Biennium

## Part A. Current Program

Department Priority of

1. Objective:

To develop and demonstrate, through Agricultural Research, programs which will expand the productive capacity and quality levels of products produced and marketed from North Carolina Farms.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Division of Research Stations Subprogram:

- a. Continue to cooperate to the fullest extent possible with North Carolina Agricultural Experiment Station, North Carolina State University and United States Department of Agriculture, in carrying out research programs responding to the needs of the agricultural industry in North Carolina.
- b. Encourage the use of Research Stations, at approved times, by Extension personnel, Vocational teachers, and other agricultural leaders, as an aid in their educational programs.
- c. Work toward providing additional research land, where possible, in order to meet the demands of Agricultural Research Scientists.
- d. Have as many field days as practical to inform the general public and media regarding activities at Research Stations.
- e. Continue to upgrade the swine, cattle, and poultry programs, to provide needed information for the rapidly expanding livestock industry in North Carolina.

3. Measures:

In recent years, new varieties of many horticultural and field crops have been developed and released for general use; the varieties of tobacco, peanuts, potatoes, peaches, soybeans, corn, and many others, have resulted in increased yields, greater disease resistance, and improved quality and consumer acceptance.

The swine facilities and management techniques developed on our research stations have gained national and international recognition as evidenced by visitors from 14 states and 7 foreign countries. In addition, over 1400 interested individuals from North Carolina have visited the facilities this year. Without question, this program has contributed toward the rapid growth of the swine industry in North Carolina.



The following information will provide facts as to some of the resources used:

	<u>1974-75</u>	<u>1975-76</u>
Pasture Land	812 acres	812 acres
Research Plot Land	856 acres	860 acres
Rotation and Support Land	951 acres	945 acres
Brood Sows	150	165
Dairy Cattle	60	60
Beef Cattle	688	717

## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNIUM

## Part A. Current Program

1. Objective:

To function as an educational and research institution and reservoir of knowledge and materials of and about our State's natural resources past and present.

2. Strategies:

The following strategies will be used to accomplish the objective of the Museum of Natural History Subprogram:

- a. By maintaining permanent exhibits illustrating unique or interesting aspects of the flora and fauna of the State or designed to instruct visitors to the museum on various aspects of natural history which should be part of the intellectual background of an educated citizenry.
- b. By maintaining a program of temporary exhibits which are periodically changed to illustrate certain events, to utilize new and unusual seasonal materials coming to the museum, and to utilize the full display potential of the permanent collections of the museum.
- c. By maintaining a staff of taxonomic specialists who are prepared by background and experience to aid the scientific community in solving problems involving the identification and classification of the flora, fauna, and minerals of the State.
- d. By maintaining a liason with the University community in order to:
  1. House collections when lack of space precludes the University housing them.
  2. To advise the graduate faculties on significant and timely research problems which offer an opportunity for graduate research.
  3. To inform University faculties and students on the facilities and programs of the museum that are available to them.
- e. Conduct an education program to serve the museum's stated purpose through the use of tours, lectures, conferences, workshops, the operation of a materials loan program, the development and distribution of appropriate written materials, the sponsorship and promotion of the N. C. Student Academy of Science, and service rendered on a consultant basis to agencies and individuals having natural history interpretive program needs and problems.
- f. By instituting a long-term, systematic research program which will be coordinated with personnel and programs of other agencies and the



University system to collect information to meet the increasing needs of the State for detailed knowledge of our flora and fauna.

- g. By continuing to develop information on endangered and threatened plants and animals and by sponsoring periodic reviews of those species currently considered endangered or threatened.
- h. By monitoring non-game species populations in the State, particularly those considered of special concern, in order to make the State aware of activities which may unwittingly lead to the extirpation or extinction of native species.
- i. By continuing our efforts leading to computerizing collections data and catalogues to make information readily retrievable and available to the public.
- j. By continuing to offer workshops, short courses, seminars, and publications on population, community, and ecosystem functioning for teachers, park naturalists, recreation directors, and other professionals involved in resource-use programs.
- k. By continuing our efforts to catalogue and index our library holdings of books, periodicals, news clippings, photographs and maps, many dating back to the mid-1800's, and making these available to historians, writers, and researchers.

Measures:

	FY 1974-75	FY 1975-76	FY 1976-77	FY 1977-78	FY 1978-79
a. Attendance in Museum	230,000	240,000	250,000	260,000	270,000
b. Attendance away from Museum (Group Programs)	8,000	15,000	25,000	30,000	35,000
c. Audio-Visual Materials (Loaned) (No. of Pieces)	32,000	42,000	50,000	55,000	60,000
d. New Exhibits	40	50	60	70	80
e. Catalog entries in Research Collection	7,000	9,000	10,000	12,000	15,000
f. Filmstrips (Loaned)	1,200	1,500	1,600	1,700	1,800
g. Movies (Loaned)	200	225	250	275	300
h. 2 x 2 Slides (Loaned)	24,000	25,000	25,000	25,000	25,000
i. Traveling Exhibits (Loaned)	5,847	6,000	6,500	6,700	7,000



j. Education Services In Museum (Group Programs)	150	200	250	300	350
k. Education Services Off Premises (Group Programs)	150	175	200	300	350
l. Extension Courses	6	8	10	12	14
m. Study Tours (Short Term Extension Courses)	2	4	6	7	9
n. N. C. Student Academy of Science (Student Membership)	3,500	4,000	4,500	5,000	6,000

#### 4. Narrative:

Renovation of the physical plant, the construction of new exhibits, and increased offerings in field trips, workshops, and short courses have already resulted in a marked increase in public participation in museum programs. Reorganization of the staff into sections under experienced curators and an increased emphasis on staff training have allowed the museum staff to keep pace with the increased demand for museum services. However, little growth can be expected in the museum's programs without additional staff since the upper limit of staff time allocation has been reached.



## Department of Agriculture

## State Fair

## III. PLAN FOR BIENNIIUM

## PART A. Current Program

I. Objective:

Fairtime - To enable the general public to enjoy the activities of the annual fair where they can learn by observing or participating in agricultural, educational, commercial and entertainment programs and events. During non-fairtime, the objective is to enable the general public to use State Fair facilities for events which meet their specific needs.

2. Strategies:

## Fairtime -

- A. All division superintendents meet with management staff to present new ideas, changes and additions to present programs that will help meet the objectives of the fair.
- B. Updating of present policies, rules and regulations that enable fair participants to enter exhibits and take part in programs that are in keeping with the objective.
- C. Through the use of State Fair publications, the news media and group meetings promote the activities of the Fair.

## Non-Fairtime

- D. By keeping buildings and grounds clean, serviced and in good repair.
- E. By providing necessary staff to assist in planning, setting up for events and maintaining buildings and grounds during the event. This would include a wide variety of events such as concerts, meetings, livestock shows and sales, trade shows and group activities that benefit the general public.

3. Measures:	<u>FY 74-75</u>	<u>FY 75-76</u>	<u>Est. FY 76-77</u>	<u>Est. FY 77-78</u>	<u>Est. FY 78-79</u>
a. Attendance	547,405	615,588	625,000	630,000	635,000
b. Number of Exhibitors	2,843	3,086	3,200	3,300	3,400
c. Number of Exhibits	10,240	10,698	10,725	10,840	10,950



## State Fair

III. PLAN FOR BIENNIUM

	<u>FY 74-75</u>	<u>FY 75-76</u>	<u>EST.</u> <u>FY 76-77</u>	<u>EST.</u> <u>FY 77-78</u>	<u>EST.</u> <u>FY 78-79</u>
d. Number of* events	274	285	300	300	310
e. Number days* use	439	536	636	636	650
c. Attendance*	536,064	519,991	525,000	525,000	535,000

\*The above figures for non-fairtime are kept on a calendar year basis.

## Agriculture

## Distribution of U. S. D. A. Donated Commodities Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part A. Current Program

1. Objectives:

To provide a supply of good quality food for use in serving meals to school children, elderly citizens and residents of state mental institutions and other charitable public and private institutions and to provide an outlet for foods acquired by the U. S. Department of Agriculture under farm price support and surplus removal programs as well as for those foods purchased to meet school lunch, meals for elderly and other group needs.

2. Strategies:

The following strategies will be used to accomplish the objectives of the Donated Commodities Subprogram:

- a. The Division will continue to act as the state distributing agency for all foods donated to the state by the U. S. Department of Agriculture.
- b. The Division provides personnel and facilities for storage of food with state warehouse facilities being located at Butner, N. C., and Salisbury, N. C.
- c. Large tractor trailer trucks are operated by the Division thus enabling the Division to distribute the foods to recipient agencies throughout the state. Personnel are employed to manage and operate the warehouses as are drivers for the trucks.
- d. The foods which are made available to the state by the U. S. Department of Agriculture are offered to the state distributing agency. The distributing agency in turn places requisitions with the Department of Agriculture specifying the amounts of food to be shipped and the desired dates. Shipments are received at the state warehouses from the U. S. Department of Agriculture either by rail car or truck. The food is then placed in either dry or refrigerated storage depending upon the nature of the food. Subsequently, the foods are shipped to the schools and institutions as needed to supply their food requirements. Shipments are made to schools and other recipient agencies either on a monthly or bimonthly basis.
- e. The Division assures the state and the U. S. Department of Agriculture that the operation of the program conforms to the applicable rules and regulations by employing a staff of field supervisors. These four field supervisors make periodic reviews and assessments of the program as operated throughout the state



paying particular attention to proper accountability, adequacies of local storage facilities and proper utilization of the donated foods. Spot checks are also made by the supervisors on the loading and unloading practices and other factors such as the adequacy of transportation equipment used in the local delivery of the USDA donated foods. Written suggestions for improvement are sent to each recipient agency as need for such improvements are observed by the field representatives.

- f. The central state office of the Division is located in Raleigh which administers the program throughout the state. Policies, rules and regulations governing the operation of the program are issued by the state office. These instructions assure compliance with terms of the distribution agreement between the North Carolina Department of Agriculture and the U. S. Department of Agriculture. Appropriate recordkeeping, including receipts and shipping documents, to properly account for all foods received is maintained. Periodically, inventory reports showing the quantity of foods on hand are received by the office from the recipient agencies. Also, the state office regularly receives from each recipient agency throughout the state a request for a quantity of the USDA donated foods being offered for distribution. The state office using these documents and also relying on the historical and recommended rates of use determines the quantity of each food to be shipped to each recipient agency.
- g. The Division prepares and distributes monthly to all schools and recipient agency a monthly newsletter giving information as to the status of the shipment of the various foods; also, included are basic storage and handling instructions. The regular newsletters are supplemented by the memorandums of instruction and information which are issued on an interim basis. The Division also prepares and publishes a handbook which sets forth the operating policies, rules and regulations for the administration of the program at the state and local level. This handbook is placed in the hands of each recipient agency for their guidance. The Division is responsible for the preparation of material for a section of the monthly bulletin published by the State Department of Public Instruction and issued to all participating schools and child nutrition programs every month.

### 3. Measures:

The quantity of USDA donated food distributed in North Carolina is fairly constant. Recent legislation passed by the U. S. Congress assures that the volume of food distributed will increase as adjustments are made for increased price levels. The Nutrition Program for the Elderly was enacted in 1974 and is scheduled for an increase each year. For example, the amount of USDA donated food guaranteed for that program for fiscal year 1975 was 10 cents per meal; for fiscal 1976 it is 15 $\frac{1}{2}$  cents and is scheduled to go to 25 cents per year in fiscal 1977. Also the number of meals allowed under the program is to increase dramatically in future years.



The information given below indicates the trend of the program.

<u>Fiscal</u> <u>Year</u>	<u>Daily Average</u> <u>Number Served</u>	<u>Quantity</u>	<u>Value</u>
	(Persons)	(Pounds)	(Dollars)
1974-75	936,302	26,846,322	18,313,146
1975-76	926,872	31,349,175	17,471,032
1976-77	930,000 est.	33,000,000 est.	18,500,000 est.
1977-78	932,000 "	35,000,000 "	19,500,000 "
1978-79	934,000 "	37,000,000 "	20,500,000 "









NORTH CAROLINA DEPARTMENT OF AGRICULTURE

1977-79 PROGRAM PLAN

PART B.    PROGRAM CHANGES  
             CAPITAL IMPROVEMENTS REQUEST





## DEPARTMENT OF AGRICULTURE

## Priority Listing of 1977-79 Change Request - Including Capital Improvements

Priority	Short Description	Program Name (Lowest Level)	Program Plan Page	Amount Requested 1977-78	1978-79
<u>General Fund:</u>					
1	Western North Carolina Farmers Market Development	Markets Subprogram	22	\$ 75,397	\$ 49,517
2	Upgrade Facilities	Seed Inspection Subprogram	147	1,430,000	688,000
3	Agriculture Building Renovation - Associated Costs	General Administration Subprogram	1	69,800	1,000
4	Markets Subprogram Improvements	General Administration Subprogram	31	244,625	40,875
5	Protection of Productive Agricultural Lands	Markets Subprogram	4	20,649	20,656
6	Development of Departmental Data Processing Applications	General Administration Subprogram	15	212,398	202,299
7	Curbing, Gutters and Resurfacing Paved Areas	Administrative Services Subprogram	257	25,745	51,504
8	Agriculture Area-wide Planning	State Fair Subprogram	CI	75,000	
9	Communication System for Key Personnel	General Administration	7	38,031	36,557
10	Agronomic Program Improvement	Animal Health Subprogram	118	51,200	1,200
11	Management and Dispersal of Equipment, Supplies and Materials Within New Analytical Laboratory	Agronomic Services Subprogram	66	26,356	24,460
12	Weights and Measures Improvements	Analytical Administration Subprogram	71	9,449	9,107
13	Boll Weevil Eradication	Weights and Measures Subprogram	140	42,776	35,501
14	Farm Shop, Office and Equipment Storage Shed - Caswell	Plant Protection Subprogram	82	1,944,294	1,518,062
15	Farm Shop, Office and Equipment Storage Shed - Umstead	State Farm Operations Subprogram	36	75,000	
16	Renovation of Three Laying Houses	State Farm Operations Subprogram	38	75,000	
17	Swine Nursery - Cherry Farm	State Farm Operations Subprogram	43	100,000	
18	Swine Nursery - Broughton Farm	State Farm Operations Subprogram	48	CI	60,000
19	Grain Storage - Cherry Farm	State Farm Operations Subprogram	51	CI	32,000
		State Farm Operations Subprogram	54	22,500	





Priority	Short Description	Program Name	Program Plan Page	Amount Requested	
		(Lowest Level)		1977-78	1978-79
20	Conversion to Liquid Fertilizer	State Farm Operations Subprogram	56	5,000	
21	Feed Manufacturing Program	State Farm Operations Subprogram	58	8,200	
22	Portable Feed Grinder and Mixer	State Farm Operations Subprogram	60	3,500	
23	Free Stall Partitions for Lounging Barns - Dix Farm	State Farm Operations Subprogram	62	2,400	
24	Installing Farrowing Crates in Farrowing House - Dix Farm	State Farm Operations Subprogram	64	4,500	
25	Farm Commodity Export Certification	State Farm Operations Subprogram	86	71,419	61,823
26	Improve Program Efficiency	Fertilizer Inspection Subprogram	150	33,981	14,499
27	Pesticide Emergency and Toxicological Review	Pesticide Subprogram	109	28,462	23,761
28	Private Applicator Certification	Pesticide Subprogram	112	123,554	108,782
29	Initiating Museum Security System	Museum of Natural History Subprogram	223	48,714	43,751
30	Hampton Mariner's Museum Improvement	Museum of Natural History Subprogram	226	44,117	44,153
31	Animal Disease Control Improvement	Animal Health Subprogram	121	14,908	56,421
32	Administrative Procedures Staff	General Administration Subprogram	9	54,853	50,893
33	Pest Control Insect Laboratory Support	Plant Protection Subprogram	89	15,869	13,524
34	Modernizing Museum Exhibits	Museum of Natural History Subprogram	229	85,162	85,180
35	Increased Funds for Livestock Feed	Research Stations Subprogram	153	50,000	50,000
36	Bulk Tobacco Curing and Handling Facilities Border Belt	Research Stations Subprogram	156	40,000	
37	Bulk Tobacco Curing and Handling Facilities - Upper Coastal Plain	Research Stations Subprogram	158	18,000	
38	Bulk Tobacco Curing and Handling Facilities - Oxford	Research Stations Subprogram	160		19,500
39	Increase in Dairy Facility - Piedmont	Research Stations Subprogram	162	15,964	19,474
40	Increased Land for Field Research	Research Stations Subprogram	164	27,514	18,224
41	Employ Agricultural Research Assistant - Border Belt	Research Stations Subprogram	166	8,000	8,007
42	Improvement in Crop Drying Facilities - Upper Coastal Plain	Research Stations Subprogram	169	35,000	
43	Addition to Peanut Drying System - Peanut Belt	Research Stations Subprogram	171	12,000	





Priority	Short Description	Program Name	Program	Amount Requested	
		(Lowest Level)	Plan Page	1977-78	1978-79
44	Completing the Swine Finishing Floor - Upper Coastal Plain	Research Stations Subprogram	173	16,550	16,700
45	Machinery Storage Building and Restroom - Upper Mountain	Research Stations Subprogram	175 CI	25,000	
46	General Storage Building - Upper Coastal Plain	Research Stations Subprogram	178 CI		22,000
47	Machinery Storage Building - Tidewater	Research Stations Subprogram	180 CI	18,000	
48	Equipment Storage Building - Horticultural Crops	Research Stations Subprogram	182 CI	25,000	
49	Machinery Storage Building - Oxford	Research Stations Subprogram	184 CI		35,000
50	Expansion of Poultry Research Program	Research Stations Subprogram	186 CI	24,000	
51	Improve Facilities at Bull Testing Station - Piedmont	Research Stations Subprogram	188 CI	13,514	14,024
52	Expansion of Irrigation System - Horticultural Crops	Research Stations Subprogram	190 CI	133,000	
53	Grain Storage and Feed Handling System - Upper Coastal Plain	Research Stations Subprogram	193 CI	60,000	
54	Grain Handling Facilities - Tidewater	Research Stations Subprogram	197 CI	75,000	55,000
55	Concrete Stave Silo - Tidewater	Research Stations Subprogram	200 CI	12,000	
56	Fenced Cattle Feed Lot - Tidewater	Research Stations Subprogram	202 CI	25,000	
57	Additional Clerical Assistance	Research Stations Subprogram	204 CI	8,000	
58	Improve Mailroom Supervision	Publications Subprogram	206 CI	17,000	
59	Landscaping Blue Ridge Road Complex	Administrative Services Subprogram	20	9,345	8,352
60	Development and Utilization of Advanced Laboratory Methodology	General Administration Subprogram	18	9,090	9,097
61	Establishment of Area Work Posts	Food, Drug and Cosmetics Subprogram	13 CI	75,000	
62	Food Storage and Distribution Facility	Food, Drug and Cosmetics Subprogram	73	54,730	42,705
63	Plant and Biological Mountain Field Facility	Food, Drug and Cosmetics Subprogram	76	8,850	6,850
64	Addition to Office - Tidewater	Distribution of USDA Donated Commodities Subprogram	259 CI	800,000	
65	State Laboratory Assistance for Local Health Departments	Plant Protection Subprogram	259 CI		14,650
66	Purchase of Additional Research Land - Peanut Belt	Research Stations Subprogram	92		
67	Supplemental Laboratory Equipment	Research Stations Subprogram	208 CI	55,000	
		Research Stations Subprogram	78	43,060	35,220
		Research Stations Subprogram	212 CI	20,000	
		Pesticide Subprogram	116	30,025	7,885





Priority	Short Description	Program Name (Lowest Level)		Program Plan Page	Amount Requested	
					1977-78	1978-79
68	Development of Lower Piedmont Research Station	Research Stations Subprogram	214		179,765	131,828
69	Improved Laboratory Equipment	Animal Health Subprogram	216	CI	420,000	
70	Construction of Dwelling - Upper Coastal Plain	Research Stations Subprogram	128		10,650	8,250
		Research Stations Subprogram	219	CI	45,000	
71	Increased Protection for the Bee and Honey Industry	Plant Protection Subprogram	96		26,318	38,249
72	Construction of Two Dwellings for Supervisors - Oxford	Research Stations Subprogram	221	CI	110,000	
73	Addition to Rollins Animal Disease Diagnostic Laboratory	Animal Health Subprogram	125	CI	765,000	14,000
74	Provide Full Curatorial Services in Research and Collections	Museum of Natural History Subprogram	232		61,117	61,166
75	Administrative Assistance in Food Branch	Food, Drugs and Cosmetics Subprogram	80		19,596	19,011
76	Educational Program Improvement	Museum of Natural History Subprogram	234		35,805	35,831
77	Security Improvements	Animal Health	132		8,500	
78	Providing Clerical Support for Museum Research and Collections Section	Museum of Natural History Subprogram	238		8,344	8,351
79	Improvement and Maintenance of Western and Rollins Animal Disease Diagnostic Laboratories	Animal Health Subprogram	134		42,000	
80	Noxious Weed Program	Plant Protection Subprogram	100		86,601	52,754
81	Updating Museum Library	Museum of Natural History Subprogram	240		16,731	11,540
82	Structural Pest Subprogram Improvement	Structural Pest Subprogram	106			21,983
83	New Museum of Natural History Building	Museum of Natural History Subprogram	247	CI		26,000,000
84	Meat and Poultry Inspection Compliance	Meat and Poultry Inspection Subprogram	137		20,000	20,000
85	Hampton Mariner's Museum Building	Museum of Natural History Subprogram	252	CI		5,500,000
86	Addition to Head House - Greenhouse	Plant Protection Subprogram	104	CI	12,000	
87	Installation of Security System at Hampton Museum	Museum of Natural History Subprogram	255		1,700	550
<u>Total Operating</u>					\$4,131,628	\$3,154,226



<u>Priority</u>	<u>Short Description</u>	<u>Program Name (Lowest Level)</u>	<u>Program Plan Page</u>	<u>Amount Requested 1977-78</u>	<u>1978-79</u>
	<u>Total Capital Improvements</u>			<u>\$4,584,000</u>	<u>\$32,425,500</u>
	<u>Total General Fund</u>			<u>\$8,715,628</u>	<u>\$35,579,726</u>
<u>Highway Fund:</u>					
1	Analytical, Petroleum Measurement, and LP Gas Measurement and Inspection Program Improvement	Gasoline and Oil Subprogram	143	<u>\$ 66,602</u>	<u>\$ 29,961</u>
	<u>Total Operating</u>			<u>\$ 66,602</u>	<u>\$ 29,961</u>
	<u>Total Highway Fund</u>			<u>\$ 66,602</u>	<u>\$ 29,961</u>





## Agriculture

## General Administration Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 3 of 87

Name of Proposed change: Agriculture Building Renovation - Associated Costs

1. Objective: To provide for the orderly reoccupation of the Agriculture Building upon completion of renovation.
2. Strategies: The funding requested herein would provide:
  - a. Office and other space necessary to house the agency during renovation of the Agriculture Building.
  - b. Reinstallation of the telephone system upon completion of renovation.
  - c. Support for the relocation of agency personnel and equipment as a result of renovation.
  - d. Office and conference room furniture and equipment for the Commissioner's Office.
  - e. Communications equipment for paging staff members and emergency evacuation.
3. Measures: This request is for a one-time appropriation to accomplish the movement of this agency due to renovation. For such a request, there are no meaningful measures.
4. Narrative Justification: The renovation of the Agriculture Building will require the relocation of most of the agency during the 1977-78 fiscal year. The only operations that will not be moved from the building will be the Commissioner's Office, including all assistants, the Administrative Services Division, the Seed and Fertilizer Division and the Museum of Natural History. Office space for the remainder of the agency will be required during renovation for a total of approximately 42,750 square feet.

In addition to office space requirements, the cost of vacating and reoccupying the Agriculture Building is outside our normal operating cost. Consequently a one-time appropriation is requested for this purpose. Also, as a result of renovation, all telephone systems will be removed from the building. The cost of reinstalling the phones is again outside our normal operating cost and requires a one-time supporting appropriation.

Current plans call for enlarging the Commissioner's office and the addition of a conference room for his use. The funding requested herein for office furniture and equipment would provide for modest furniture and appointments for the additional space.

Funding requested for other equipment will be used to purchase and install a paging and emergency communications system for the Agriculture Building. Properly designed, such a system would mean more efficient use of the telephone. Incoming calls are often not completed when employees are away from their desk or work area. The ability to page staff members would improve our capability to respond to the needs of the agricultural industry and general public. In the event of an emergency requiring the evacuation of the building, the system would provide the capability of notifying all personnel throughout the building. With the constant threat of fire and bombings, whether real or not, it is imperative that we be able to evacuate the building rapidly. In times of emergency, the telephone is a poor alternative to a warning system.



5. Funding Requirements:

Agriculture (Code: 28021)

General Administration Subprogram

Agriculture Building Renovation - Associated Costs      Priority 3 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3210 Telephone Service	\$ 5,875	\$ 5,875	\$11,750
3920 Moving Expense	25,000	25,000	50,000
4130 Rent of Offices	213,750	-	213,750
5100 Office Furniture and Equipment	-	5,000	5,000
5500 Other Equipment	<u>-</u>	<u>5,000</u>	<u>5,000</u>
Total	\$244,625	\$40,875	\$285,500
Non-recurring	\$244,625	\$40,875	-



## Agriculture

## General Administration Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 5 of 87

Name of Proposed Change: Protection of Productive Agricultural Lands

1. Objective: To protect and insure the productive capacity of North Carolina producers to provide food and fiber.
2. Strategies: This program will establish protection, incentives, and responsibilities for farmers who, in the absence of outside pressures, desire to continue producing livestock, poultry, and commodities from their land.

In order to accomplish the above goals the following strategies will be employed:

- a. Develop a program to be administered by the North Carolina Department of Agriculture to provide the framework for producers to protect and conserve the land as a productive renewable resource.
  - b. Review and optimize measures taken in other states to address the national problem of the irreversible loss of productive lands.
  - c. Develop a state policy concerning this issue so the State may officially address it concerning actions by the State.
  - d. Review existing and develop any new legislation necessary to implement and administer the program.
  - e. Add additional personnel and provide for office space, supplies, and equipment necessary to implement and administer the program.
3. Measures: It is difficult to project measures for a new program. Statistical documentation concerning the loss of agricultural land has been presented. Possible measures could include the following.
    - a. Number of farms (acres, individuals) taking advantage of the program.
    - b. Monitoring the loss of acres on some time interval to evaluate the effects of the program on slowing the rate or reversing the trend concerning the loss of productive agricultural land.
    - c. Monitoring the productive capacity of the agricultural community in terms of land available.



4. Narrative: Agriculture is and has always been a vital and basic force in relation to the general well being of North Carolina. Contributions from agriculture in terms of way of life, quality of life, economic and social well being as well as the direct production of food and fiber have been and are invaluable to the citizens of North Carolina. Ironically, this has created the false illusion that agriculture as a resource needs no public protection because there will always be enough food and fiber. As a result, productive agricultural lands are being lost, not by design or intent, but because relatively speaking there are so few people directly affected that no public programs have been initiated in this area.

Endangered plants and animals, water, air, sand dunes, marshes, wetlands, etc. which are considered natural resources all have some measure of protection. It is somewhat ironic that land, which is as basic to agriculture as agriculture is to civilization, is not considered a natural resource in terms of its renewable productivity for food and fiber.

If agriculture is to continue to provide products of the quantity and quality expected and demand by the citizens of North Carolina and if the rural character of the State is to survive in view of population and development pressures, a program for the protection of productive agricultural land must be provided.

5. Funding Requirements:

Agriculture (Code: 28021)

General Administration Subprogram

Agricultural Land Use and Protection      Priority 5    of    87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$151,164	\$151,164	\$302,328
(1) Administrator @ \$18,888			
(1) Administrative Officer I @ \$11,364			
(1) Engineer @ \$14,256			
(3) Engineering Technicians @ \$11,892			
(1) Economist II @ \$16,392			
(1) Agronomist II @ \$15,624			
(1) Environmental Planning Consultant @ \$13,032			
(1) Technician (Soil Science) @ \$11,892			
(2) Secretary III @ \$7,020			
1810 Social Security	8,994	9,145	18,139
1820 Retirement	13,786	13,786	27,572
1830 Hospitalization Insurance	3,204	3,204	6,408
2600 Office Supplies	3,000	3,000	6,000
3100 Travel	15,000	15,000	30,000
3210 Telephone Service	5,000	5,000	10,000
3250 Postage	1,500	1,500	3,000
4901 Subscriptions and Dues	500	500	1,000
5100 Office Furniture and Equipment	10,000	-	10,000
5600 Books	<u>250</u>	<u>-</u>	<u>250</u>
Total	\$212,398	\$202,299	\$414,697
Non-recurring	\$ 10,250		





## Agriculture

## General Administration Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 8 of 87

Name of Proposed Change: Agricultural Areawide Planning

1. Objective: To provide agricultural input into the 208 Areawide Waste Management Program.
2. Strategies: During the first half of the 1977-79 biennium, the new planning staff will work directly with the formulation of the planning process itself mandated by Section 208 of P.L. 92-500. The North Carolina Department of Natural and Economic Resources has been designated as the State agency responsible for the 208 program by Governor Holshouser. During the initial phases of the program the NCDA areawide planning staff will concentrate primarily on insuring the process and policies developed adequately addresses the needs of agriculture.

After this initial phase NCDA emphasis will shift to assisting and insuring that best management practices developed for agriculture operations, which will become enforceable, are technically and economically feasible.

3. Measures: Direct evaluation of this type of a program would be extremely complex because it deals with policy as much or more than program. The ultimate measure will come when the 208 program effects are known.
4. Narrative: P.L. 92-500 creating 208 planning process in one of the most comprehensive and complex laws ever written. This is true because in a sense Section 208 is an attempt at regulating the effects of natural processes. Another complicating factor is generated in relation to agriculture and 208 planning because the lead agency (N. C. Department of Natural and Economic Resources) with overall responsibility for the 208 program has little or no expertise in the agricultural area.

If a meaningful 208 planning process in the public is to be developed, it is imperative for the North Carolina Department of Agriculture to be allocated the necessary resources to have adequate input into the program.



5. Funding Requirements:

Agriculture (Code: 28021)

General Administration Subprogram

Agricultural Areawide Planning Priority 8 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$26,808	\$26,808	\$53,616
(1) Agronomist @ \$11,892			
(1) Economist @ \$14,916			
1810 Social Security	1,595	1,621	3,216
1820 Retirement	2,444	2,444	4,888
1830 Hospitalization Insurance	534	534	1,068
2600 Office Supplies	300	300	600
3100 Travel	4,000	4,000	8,000
3210 Telephone Service	700	700	1,400
3250 Postage	150	150	300
5100 Office Furniture and Equipment	<u>1,500</u>	<u>-</u>	<u>1,500</u>
Total	\$38,031	\$36,557	\$74,588
Non-recurring	\$ 1,500	-	-





Agriculture

General Administration Subprogram

III. PLAN FOR THE BIENNium

Part B. Program Changes

Department Priority 32 of 87

Name of Proposed Change: Administrative Procedures Staff

1. Objective: To maintain the Administrative Procedures Act in the Department of Agriculture in order to insure that all rules and regulations enforced by the Department are properly promulgated and adopted.
2. Strategies: In order to insure that proper procedures are followed and that those being regulated have the opportunity to voice their objections, opinions or rebuttals to evidence presented, the following strategies will be developed:
  - a. Two attorneys will be hired with the specific functions of developing changes to our present rules and regulations and develop new rules and regulations in order to comply with enabling legislation as directed by the Division Heads of the particular regulatory division. Attorneys during this process will be responsible for analyzing and working very closely with the Attorney General's office in interpreting exactly what is our authority under our existing legislation and to develop the authority needed with new legislation.
  - b. A secretary or an administrative secretary will be needed for the Attorneys in order for the attorneys to have both clerical and administrative assistance.
  - c. There will be times when one attorney will have to act as a hearing officer and avoid any contact with a division head or staff member and act as an impartial hearing officer in a particular case. The other attorney may have to act as a prosecuting attorney in order to present all the facts relative to a contested case.
  - d. Both attorneys may at times have to act as a rule making hearing officer in order to hold all hearings needed under the APA.
  - e. Both attorneys will have the responsibility of recodifying and rearranging the laws which may be confusing not only to those in the Department but also to the public and eliminate or suggest elimination of those antiquated laws.



- f. At some point in time, the attorneys will conduct training sessions for staff personnel in regulatory work to show how to collect evidence, present evidence and generally form sound cases in order to guarantee fairness in all contested cases.
3. Narrative: In 1974 the General Assembly passed the Administrative Procedures Act (Act) requiring that all state agencies promulgate and adopt rules and regulations for implementing their statutory authority. In adopting these rules and regulations, certain procedures have to be followed in order to insure that everyone is given due process. Furthermore, due process has to be given an individual who commits a violation of regulations for which the state agency has to take some sort of remedial action. Procedures are set forth in the Act which provide a process for contested cases and rule making. This process can be simply opening a meeting or a hearing and then closing it; or it can be a process, as it is in most cases, of conducting a lengthy hearing where both parties have an opportunity to present the facts as would be done in the general court of justice. After the presentation of all the facts, the hearing officer then has the responsibility of analyzing these facts and writing a brief memorandum to present to the governing body, such as the Board of Agriculture. In both the rule making hearing and a contested case hearing, the hearing officer himself would be established to hear the evidence instead of a judge. The above process requiring contested cases and rule making hearings is not homogenous to the North Carolina Department of Agriculture. Since the process is spelled out in the Act, all Departments must go through the same process unless there is a more stringent requirement in the enabling legislation. It must be noted that the attorneys outlined in the strategies will not be final decision maker. The attorneys will be responsible for conducting hearings for rule making, contested cases, and gathering all the facts and making preliminary decisions which will be presented to the governing board, commission, or other agency. The method of presentation is also spelled out in the Act in that the one conducting the hearing has to develop the findings of fact, conclusions of law and judgement. Such a technical process needs to be accomplished by one trained in the process as attorneys are.

It is impossible to determine the full effect on the Department if strict adherence to the procedures is not followed. The Department would be unable to enforce regulations which need changing to meet the changes in technology and enforce new regulations which are not properly developed according to the Act or other procedures as defined in our legislation. In prior years, rules and regulations were formerly filed with the Secretary of State's office. However, now all rules and regulations have to be filed with the Attorney General's office and we, as a filing agency, must maintain a copy of all rules and regulations in a central location for those desiring access to the rules and regulations. In addition, a mailing list will have to be maintained by those implementing the Administrative Procedures Act in a central location in order that all members of the public who wish to be informed about developments of their particular interest can be informed. It is not too hard to conceive



of as many as a thousand people wanting to see a copy of all changes we propose to make. For example, our Consumer Standards Division affects the public more directly than any other division probably we have. There may be quite a few consumers who would like to see proposed changes in the way we check scales for proper weight.

Procedures have to be established not only for this Department but other Departments so that any member of the public may walk in the front door and obtain with a reasonable length of time answers as to how to get a regulation changed or how to question the enforcement of such a regulation. It is for these reasons and our objectives that we request additional funds for the establishment of personnel, a central office, supplies and equipment necessary to implement and administer a program designed to insure due process to the public and easy access to our Departmental rules and regulations.



5. Funding Requirements:

Agriculture (Code: 28021)

General Administration Subprogram

Administrative Procedures Staff	Priority	32 of 87	
	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$39,804	\$39,804	\$79,608
(2) Attorney I @ \$16,392			
(1) Steno (III) @ \$7,020			
1810 Social Security	2,368	2,408	4,776
1820 Retirement	3,630	3,630	7,260
1830 Hospitalization Insurance	801	801	1,602
2600 Office Supplies	500	500	1,000
3100 Travel	3,000	3,000	6,000
3910 Legal Advertising	750	750	1,500
5100 Office Furniture and Equipment	<u>4,000</u>	<u>-</u>	<u>4,000</u>
Total	\$54,853	\$50,893	\$105,746
Non-recurring	\$ 4,000	-	-





Agriculture

General Administration Subprogram

III. PLAN FOR THE BIENNIUM

Part B. Program Change

Departmental Priority 59 of 87

Name of Proposed Change: Landscaping Blue Ridge Road Complex

1. Objective: To provide appropriate landscaping and site treatment for the Blue Ridge Road Laboratory Complex.
2. Strategies:
  - a. Because of the continuing development of state owned property in the area, master planning and landscaping treatment will be developed.
  - b. Seek appropriated support to provide such landscaping and site treatment as needed.
3. Measures: Because this proposal does not provide for changes to existing programs or development of a new program but rather provides support for the preservation of real property, no significant measures are available.
4. Narrative: Upon completion of the Analytical Laboratory, major construction proposed for the Complex will be finished. The total investment by the State in development of the area will exceed \$4,625,000. With the development of the Museum of Art, across the street, several additional millions of dollars will be spent in the area. With such development, it would seem wise to landscape the area to protect the State's investment. In addition to what might seem purely aesthetic considerations, there is a definite need to protect the area from erosion. The southern boundry of the property, adjacent to Reedy Creek Rd., is already deteriorating badly. As a result of construction, other large areas will be left bare and subject to erosion.





## CAPITAL IMPROVEMENT REQUEST

Agriculture

General Administration Subprogram

Request: Landscaping Blue Ridge Road Complex

Priority 59 of 87

Description

1. This request involves comprehensive landscaping for the laboratory complex with appropriate attention to entrance ways, walks, erosion prevention and shrubbery.
2. The project is located in west Raleigh at the intersection of Blue Ridge and Reedy Creek roads.

Justification

See Plan for the Biennium, Part B., 4. Narrative for Justification.

Cost/Financing

1. Cost of Components:

FY 1977-78

Landscaping

\$75,000\*

\*Form DAP-105 has not been submitted for this project. However, the estimated cost was provided by Mr. Henry Hammond, Landscape Architect at the request of F. Carter Williams, architects for the Analytical Laboratory.

2. Operating Costs:

There will be no additional operating cost as a result of this request.

3. Source of Funds: General Fund



Agriculture

Administrative Services Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part B. Program Changes

Department Priority 6 of 87

Name of Proposed Change: Development of Departmental Data  
Processing Applications1. Objective:

To provide electronic data processing capability to various operating programs.

2. Strategies:

- a. Survey the Department for those operations or processes which are labor intensive and which are adaptable to electronic data processing.
- b. Where feasible, design computer systems which can serve all programs with like operations or processes.
- c. Design computer systems for operations or processes peculiar to a given program where necessary.
- d. Maintain all implemented systems to keep them current and in keeping with changing needs.

3. Measures:

This is an administrative service program for which measures are not yet available. However, to provide some examples of applications currently under study and in various stages of completion, the following list is provided:

PROGRAM

Commercial Fertilizer

Commercial Feed and Pet Food

All Regulatory Programs

Pesticide Control and Analysis

Plant Protection

APPLICATION

Product Registration  
Analysis Reports  
Inspection Reports  
Management Information

Product Registration  
Tonnage Report  
Analysis Report  
Management Information

Licensing for Various  
Operations, Approx. 100,000

Product Registration  
Management Information

Nursery Acreage  
Inspect Assignment  
Billing for Inspections  
Management Information



Food, Drugs and Cosmetics

Analysis Reports  
Inspection Report  
Management Information4. Narrative Justification:

As an Administrative Services function, we have developed a cooperative, departmental Management Systems Section with the USDA Statistical Reporting Service. This arrangement provides this agency with excellent data processing development capability. With the additional assistance of the Department of Administration's State Management Systems Office, we now possess the capability to develop the Departments' data processing applications to the optimum level. The list of applications shown in (B) above is in no way a complete list. It is intended to provide some idea of the type of application to be developed. As systems are developed, certain efficiencies and savings will accrue. Such savings will be used to support the cost of data processing to the extent possible. However, savings are not always sufficient to cover total cost. In many cases savings take the form of personnel time and the use of the time saved is better directed towards other program improvements. In other cases, any savings effected are consumed by inflation.

With the support provided by this request, we would be able to develop applications regardless of the amount of savings. Certainly, the improvements afforded by data processing are worth the cost and the future cost avoidance feature is always present.

This request provides for the phasing of data entry personnel and equipment as the demand increases. Other cost, mainly computer time, is requested in a reserve to be utilized only in cases where savings are not sufficient to provide support. Any funds appropriated, but not used for this purpose, will revert to the General Fund.

5. Funding Requirements:

Agriculture (Code: 28021 )

Administrative Services Subprogram

Development of Departmental Data

Processing Application

Priority 6 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Key punch Operator II @ \$7,020 (1 first year ) (2 second year)	\$ 7,020	\$14,040	\$21,060
1810 Social Security	418	849	1,267
1820 Retirement	640	1,281	1,921
1830 Hospitalization	267	534	801
4200 Rental of Data Processing Equipment	2,400	4,800	7,200
8300 Reserve for Data Processing Service	<u>15,000</u>	<u>30,000</u>	<u>45,000</u>
Total	\$25,745	\$51,504	\$77,249
Non-recurring	-	-	-





## Agriculture

## Administrative Services Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 58 of 87

Name of Proposed Change: Improve Mailroom Supervision

1. Objective: To provide fulltime supervision in the departmental mailroom and centralized receiving for incoming freight.
2. Strategies:
  - a. As a result of a recent study of mailroom operations, implement needed changes in work assignments to improve personnel usage.
  - b. Provide one additional position for the operation to act as supervisor and receiving clerk.
3. Measures: The measures of accomplishment afforded by this change will be in more rapid handling of mail and supplies, better control over incoming freight and the elimination of breaks in services due to absenteeism.
4. Narrative Justification: The departmental mailroom provides a variety of services to all programs of this agency. In addition to handling incoming and outgoing US mail, as the name implies, the two staff members also deliver and pick up interoffice mail. This involves daily trips to other downtown agencies as well as trips to NCSU, the State Fair, Agronomics Laboratory, Diagnostic Laboratory and the Analytical Laboratory upon its completion. Each of the latter facilities are located on Blue Ridge Road in West Raleigh. The distribution of office supplies from the departmental stock room is another responsibility. One of the staff members carries all deposits to the bank and periodically both are away from the mailroom when the Agricultural Review is carried to the Post Office. This publication is mailed twice monthly and consists of 60 bags per issue. This list of duties is not complete but rather seeks to give examples of occasions when one or both staff members are away from the mailroom. On such occasions, there is no one available to receive incoming freight. This situation is quite undesirable because of the value of some freight items. Freight companies will not deliver to specific offices but will leave some very expensive items lying in unprotected areas if no one is available to receive freight.

In addition, with only two staff members, when one is absent for either sick or annual leave, one half of the operation ceases to function. An additional position would solve this problem and provide overall improvements to services.



5. Funding Requirements:

Agriculture (Code: 28021)

Administrative Services Subprogram

Improve Mailroom Supervision      Priority    58 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Mail Center Supervisor II @ \$7,668	\$ 7,668	\$ 7,668	\$15,336
1810 Social Security	456	463	919
1820 Retirement	699	699	1,398
1830 Hospitalization Insurance	<u>267</u>	<u>267</u>	<u>534</u>
Total	\$ 9,090	\$ 9,097	\$18,187
Non-recurring	-	-	-





Agriculture

Publications Subprogram

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

Department Priority 57 of 87

Name of Proposed Change: Additional Clerical Assistance

1. Objective: To provide continued service to increased demand for information.
2. Strategies: This program will require increased secretarial service to meet this demand primarily due to two factors:
  - a. Administrative Procedures Act requiring leadership from the Hearings Reporter.
  - b. Law requiring annual circularization of Agricultural Review mailing list.

This additional staff member will require a limited amount of office equipment.

3. Measures: Advantages of additional clerical staff will result in better efficiency and more timely efforts rather than measurable increase in output.
4. Narrative: The work load of the secretary in the Publications office has increased significantly in the past two years.

Much of her time is spent writing ads from the information supplied and preparing the copy for the printer.

Information and communications specialists in the office are expected to generate considerable news copy and other information. All requires clerical assistance for the preparation and distribution.

Recent cooperation of office with Market News section has resulted in weekly market news summary having to be reproduced and mailed weekly during busiest office hours to meet media deadline schedules.

All totaled and summarized, the present secretary is capable and willing to take on additional responsibilities not expected of her predecessors. The result is a very severe overload and need for additional clerical position in the office.





5. Funding Requirements:

Agriculture (Code: 28021)

Publications Subprogram

Additional Clerical Assistance

Priority 57 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 7,020	\$ 7,020	\$ 14,040
(1) Secretary (III) @ \$7,020			
1810 Social Security	418	425	843
1820 Retirement	640	640	1,280
1830 Hospitalization Insurance	267	267	534
5100 Office Furniture & Equipment	<u>1,000</u>	<u>          </u>	<u>1,000</u>
Total	\$ 9,345	\$ 8,352	\$ 17,697
Non-recurring	\$ 1,000	-	



Agriculture

Markets Subprogram

Western North Carolina Farmers Market Element

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

Department Priority 1 of 87

Name of Proposed Change: Western North Carolina Farmers Market Development

1. Objective:

To provide additional facilities needed to make the farmers market a multi-purpose center in keeping with its original purpose to serve the several segments of marketing fresh produce in Western North Carolina.

2. Strategies:

The resources being requested will be used to construct the necessary buildings and provide the accompanying services needed for maximum efficiency in operating the market. Every attempt will be made to provide space for each farmer and each wholesaler to sell their products at the market center.

In order to accomplish these goals the following strategies will be used:

a. Construct the additional buildings called for in the master plan for the market which were recommended following a detailed feasibility study as to the need for such facilities.

b. Employ a maintenance mechanic to keep the market area and grounds clean and neat in appearance and to make minor repairs on facilities and equipment.

c. Purchase the necessary equipment and tools for maintaining the buildings and grounds in a satisfactory manner.

d. Hire sufficient personnel to serve as gate keepers at the market and to collect fees from truckers, farmers and retailers using the market.

3. Measures:

It is anticipated that present personnel can be cross-utilized to handle the manpower requirements in the initial stage of the market's operations. However, as additional facilities are provided and the resulting



increased use of the market comes into being, the additional personnel will be needed. The following projected increase in the markets use offers supportive evidence to the need for the requested resources if the market is to be operated in an efficient manner.

	<u>1977-78</u>	<u>1978-79</u>
Farmers selling on market	2,100	3,000
Truckers selling on market	900	1,100
Wholesalers selling on market	2	3
Garden supply centers	1	-
Special wholesalers	1	2
Buyers visiting market	60,000	80,000

#### 4. Narrative:

Small farm operations still make up the bulk of Western North Carolina's agricultural production. This is particularly true as it relates to fresh vegetables and some fruit crops. Because of the limited volume of production on individual farms and the lack of desirable marketing facilities in the area where these products can be assembled for more efficient marketing, numerous farmers have ceased production and others have had to dispose of their products as best they could. A type of community market existed for many years in the City of Asheville but urban renewal projects have absorbed the space formerly occupied by the market. As a result, farmers who relied on this market for selling their produce and consumers who used it as a place to buy farm-fresh products have been forced to resort to other means. In addition, there are several wholesale food firms in the area that have old facilities and outdated and inefficient handling operations. Thus, there is a dual need for a well-planned market center to provide for a more efficient and sanitary system of handling foods and to provide an outlet for farmers to market their fresh products. Such a facility would promote increased farm production and provide needed income to numerous farm families. It would also provide suitable facilities for the many families engaged in the production of ornamentals and the making of crafts to market their products. The feasibility study which was made in conjunction with the planning of the market indicated a strong interest on the part of numerous producers to utilize the facilities for selling their produce. Likewise, a strong interest was expressed by the wholesale food dealers to move their operations to the market once suitable facilities were provided.

Maintenance of the buildings and grounds for such a facility is extremely important from a sanitation standpoint and for efficiency of operation. While users of the market will be required to dispose of waste products resulting from their operations, there will still be a vital need for frequent cleaning of the market area because of the anticipated heavy traffic in and out of the market. Minor repairs on utilities, keeping the rest rooms in sanitary condition, minor building repairs, grass mowing, shrub pruning and other chores will necessitate

one person devoting full time to this responsibility. And to carry out this work, necessary equipment will be needed so it can be done efficiently and in the allotted time.

Since the market, once completed, will become self-supporting through rent and fees collected from users and in order to assure proper use of the facilities, it will be necessary to provide a combination gatekeeper and security officer at the main entrance at all times when the market is open. This will permit the collection of fees from users as they enter, provide a point of information for visiting buyers and thus make for a more orderly flow of traffic into and out of the market.







5. Funding Requirements:

Agriculture (Code: 28021 - 1020)

Markets Subprogram

Western North Carolina Farmers Market Development

Priority 1 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$13,740	\$13,740	\$27,480
(1) Maintenance Mechanic @ \$7020			
(1) Gatekeeper @ \$6,720			
1220 Overtime	1,500	1,500	3,000
1230 Premium Pay	600	600	1,200
1260 Salaries and Wages - Temporary	4,320	4,320	8,640
(1) Gatekeeper (\$3.00 per Hour)			
1810 Social Security	1,200	1,220	2,420
1820 Retirement	1,253	1,253	2,506
1830 Hospitalization	534	534	1,068
1999 Other Contractural Services	2,000	2,000	4,000
2500 Motor Vehicle Operation	1,200	1,200	2,400
2600 Office Supplies & Materials	250	250	500
2990 Other Materials & Supplies	2,500	2,500	5,000
3100 Travel	3,000	3,500	6,500
3210 Telephone Service	1,000	1,000	2,000
3250 Postage	300	400	700
3300 Utilities	9,500	10,000	19,500
3510 Buildings	500	1,000	1,500
3520 Repairs & Maintenance - Equipment	300	300	600
3700 Advertising & Public Information Ser.	500	500	1,000
3990 All Other Services	100	100	200
4500 Insurance & Bonding	2,000	2,000	4,000
4901 Subscriptions & Dues	500	500	1,000
4903 General Expense	400	400	800
5100 Office Furniture & Equipment	500	-	500
5400 Motor Vehicle	7,000	-	7,000
5500 Other Equipment	20,500	500	21,000
8510 Imprest Cash Funds	<u>200</u>	<u>200</u>	<u>400</u>
Total	\$75,397	\$49,517	\$124,914
Non-recurring	\$27,500		



## Estimated Receipts:

0603 Wholesale Facility Rents		\$21,600	\$21,600
0604 Admissions - Miscellaneous Revenue	\$12,000	15,000	27,000
0906 Imprest Cash Redeposit	<u>200</u>	<u>200</u>	<u>400</u>
Total Estimated Receipts	\$12,200	\$36,800	\$49,000





## Agriculture

## Markets Subprogram

## Western North Carolina Farmers Market Element

Request: Buildings for specific use to make the Western North Carolina Farmers Market operational, namely: (1) Fruit and Vegetable Wholesale Building; (2) Garden Supply Building; (3) Grocery Wholesale Building; (4) Gate House; (5) Office Building.

Department Priority 1 of 87

Description:

1. The request entails the construction of five buildings, each for a specific use as outlined below and all of which will be built on department property:

a. 21,600 sq. ft. of warehouse type space, 3,600 sq. ft. of which will be used for office and light storage and the remaining 18,000 for holding and displaying fresh fruits and vegetables.

b. 10,000 sq. ft. of warehouse type space for holding and displaying garden supply needs.

c. 19,600 sq. ft. of warehouse type space for holding and displaying hard grocery items.

d. 200 sq. ft. of office type space for the market gatekeeper to oversee traffic into and out of the market and for collecting fees from truckers utilizing the market as a place to sell their products.

e. 4,400 sq. ft. of office space to house the market manager, assistant manager, secretarial staff and equipment for operating the market, carrying on the daily market news service and performing the official farm commodity grading services for producers and tradespeople in Western North Carolina.

2. These facilities will be located on a tract of land Northwest of Asheville near the intersection of Interstate Highways 40 and 26.

3. These are listed in (1).

4. Estimated space required for activities:

## Wholesale fruits and vegetables

Storage and display	18,000 sq. ft.
Office and light storage	3,600 sq. ft.

## Garden Supply Center

Storage and display	10,000 sq. ft.
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Wholesale Groceries Storage and display	19,600 sq. ft.
Gate House Office	200 sq. ft.
Office Building Office	<u>4,400</u> sq. ft.
Total Space	55,800 sq. ft.

5. There are no unusual construction requirements that will affect the cost of either of these proposed buildings as virtually all grading will have been done in conjunction with preparation of the overall site and subterranean tests indicate no problems to be encountered. The only one of the aforementioned buildings to be air conditioned is the 4,400 sq. ft. office building.
6. The need for these facilities has existed for many years because of the antiquated facilities and equipment now in use and their widely scattered locations for efficient distribution. Also, these facilities will greatly support those already in operation at the market center and will more readily assure a modern wholesale-retail food distribution center for Western North Carolina and a center where the many small farmers in that area can more efficiently market their farm products. A retail market building, 12,000 sq. ft. in size, is serving a real need for selling small quantities of fresh produce to the many consumers seeking these products. Likewise, a trucker's shed, 11,520 sq. ft. in size, is providing for limited wholesale distribution of similar products.
7. This is answered in (6).
8. The new office building being requested would permit relocation of existing department personnel from the basement of an office building in downtown Asheville to the WNC market site. Space now being provided for this personnel is made possible by Buncombe County and they need the space for county agencies. Also, this personnel needs to be located at the market to assure its proper management and operation and to provide for a centralized point where all Department personnel serving in Western Carolina could be brought together. This includes, in addition to the market manager, the market news service, commodity grading, Egg Law enforcement and other service and regulatory duties carried on by other divisions within the Department.

9. None.

Justification:

1. The scope of the requested project and space estimates for each function were based upon the following:



The Agricultural Marketing Research Institute of the U. S. Department of Agriculture, an agency that for the past few decades has made numerous and extensive studies on marketing facilities throughout the nation and has prepared detailed plans for many that have been built in recent years, made a six-months study of the Western Carolina area to determine the needs for this market and made their recommendations in accordance with their study findings. Their recommendations on building sizes and layouts, based on numerous efficiency studies made by them, along with the experience of department staff members served as the basis of these recommendations. Contributing to this of course was the findings revealed in the study as to the volume of products produced in the area served by the market, as well as the volume of products distributed in the area by wholesalers, truckers and others.

2. This project will permit an expansion of the department's services and will provide a needed service for vast numbers of both producers and consumers as outlined in the Narrative section of Program Change.

3. This project is requested to provide for expanded services. In response to the information sought in this connection, it is difficult to comment on the safety hazards of clients as they now exist except the antiquated facilities and equipment in use at privately owned facilities leave much to be desired insofar as the safety of the users is concerned. The new facilities being requested would mean the existing ones would be vacated in most instances and safety of all would be more assured. The primary service interruptions now occurring are mainly due to inadequate and inefficient facilities which contribute to slower service, lighter supplies and frequently poorer quality products. There is no way to tell how many clients are turned away because of inadequate facilities. But it has long been apparent that more producers would be selling their products direct to consumers and an increased number of consumers would be patronizing these individuals if suitable facilities could be provided for these transactions to occur. The primary inefficiencies of existing facilities, all privately owned, rest in their state of repair, being poorly planned, use of outmoded equipment and inconveniently located with one portion of an individual operation in one part of town and another portion in another section of town. Should the request be denied, the department will not be able to render the services that are so badly needed in that area to aid the many small producers to more efficiently market their fresh produce. This would mean the increase in production that is sure to come about if the planned facilities could be provided would not materialize and many of these farmers would forfeit this income.

4. Since the nature of this project is intended to broaden the services of the Department, there will be little if any reduction in operating costs. The primary benefit from a cost standpoint that will accrue to the Department will be from having all personnel in that area centrally located on the market site which will result in more efficient use of time and resources.

## Cost/Financing

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land	\$ 200,000	-	-	-
Design, Site Development Access & Parking	250,000	-	-	-
Utilities	80,000	-	-	-
Construction	875,000	\$ 688,000	\$ 535,000	\$ 558,000
Fixed Equipment	-	-	-	-
Subtotal	\$ 1,405,000	\$ 688,000	\$ 535,000	\$ 558,000
Movable Equipment	25,000	-	-	-
Total	\$ 1,430,000	\$ 688,000	\$ 535,000	\$ 558,000

## 2. Operating Costs:

Staff, Total Annual Additional	\$ 43,700	\$ 45,885	\$ 48,179	\$ 50,588
Utilities, Total Annual Additional	10,500	11,000	11,500	12,000
Maintenance, Total Annual Additional	1,000	1,500	2,000	2,500
Other, Total Annual Additional	500	500	500	500

## 3. Source of funds: General Fund



Agriculture

Markets Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 4 of 87

Name of Proposed Change: Markets Subprogram Improvements

#### 1. Objective:

To provide the additional services being requested of the Markets Subprogram which cannot be met with existing resources.

#### 2. Strategies:

The requested resources will be utilized to provide more current information on farm market conditions to aid farmers in making their decisions on when, where and how to sell. Services to the state's increasing export interests and expanding horse industry will be increased as a means of responding to their needs on a more efficient basis.

The following strategies will be used to accomplish the above goals:

a. Employ an additional secretary to permit quicker response to the increased requests for information from individuals and firms seeking assistance on overseas sales. This person will also render needed assistance to the horse specialist who is being relied on heavily for a variety of assistance to the state's ever expanding horse industry.

b. Employ two part-time market reporters to cover weekly sales on two of the state's major livestock auction markets (Asheville and Monroe) to provide producers and others in those areas of the state more representative price and condition reports as are being provided in other areas with existing personnel.

c. Install a toll-free wats line to permit producers, tradespeople and others throughout the state an opportunity to obtain at any hour of the day or night the most current information possible on prices and conditions at leading state and national livestock markets.

#### 3. Measures:

The demand for more complete and more current market news information is steadily increasing. This is particularly true for livestock information as production continues to expand and marketing patterns



undergo additional changes. Only by staying abreast of market conditions at both the local and national level can producers market their livestock to the best advantage. Existing resources do not permit this information being made available as readily as it should be to best serve the state's livestock producers.

Expansion of our efforts to promote foreign sales of more of the state's agricultural production has resulted in a pressing situation to handle the numerous requests for assistance in this endeavor and to provide the supportive services needed at the state's overseas office in Dusseldorf. Increased correspondence, telephone requests and maintaining needed records have placed unmanageable burdens on existing secretarial staff.

NOTE: Existing records do not permit a statistical presentation of these conditions. Procedures for accumulating such data, however, have been outlined and more complete records are now being maintained.

#### 4. Narrative:

One of the most effective tools a farmer can have when he markets his production is as complete a knowledge as possible of prices his products are bringing at both local and national markets. Without this knowledge he is at a disadvantage in bargaining with the more informed buyer. Excellent cooperation on the part of the various news media has permitted statewide dissemination of such information on a daily basis, but numerous farmers and others have expressed the need for more frequent up-dating of such reports since market trends often times change two or three times a day. By making these changes available on an up-to-the-minute basis and obtainable at any hour of the day through a recorded telephone message, farmers could be kept better informed on a more current basis.

Accuracy of market information is imperative if it is to serve farmers' needs. Because of this and the need for wider geographic coverage of the leading livestock markets in the state, personal coverage of sales in the two areas requested by an unbiased reporter will provide needed information which current resources will not permit.

Since North Carolina has become a member state of the Southern United States Trade Association (SUSTA) along with 14 other southern states in an effort to share resources in promoting foreign trade, inquiries and requests for assistance from interests throughout the state have expanded at an unequalled rate. Coupled with this is the staff position we now have in Dusseldorf, Germany to promote the sale of North Carolina farm products. These two forward moves have created a much larger volume of correspondence, telephone requests, record maintenance and other secretarial duties associated with the work. Because of this increase and the expanded activities which the program is rendering to the state's ever growing horse industry, it is not possible to handle the innumerable requests as readily as they should be handled with existing personnel.

If we are to respond to these needs in our foreign trade work and in the multitude of duties carried on to serve the horse industry, an additional secretarial position must be provided.

5. Funding Requirements:

Agriculture (Code: 28021 )

Markets Subprogram

Markets Subprogram Improvements

Priority 4 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Clerk-Steno (III) @ \$7,020	\$ 7,020	\$ 7,020	\$14,040
1810 Social Security	418	425	843
1820 Retirement	640	640	1,280
1830 Hospitalization	267	267	534
1999 Other Contractual Services (2) Part-time Market Reporters	3,640	3,640	7,280
3100 Travel	1,404	1,404	2,808
3210 Telephone (Wats Line)	<u>7,260</u>	<u>7,260</u>	<u>14,520</u>
Total	\$20,649	\$20,656	\$41,305
Non-recurring	-	-	







## Agriculture

## State Farm Operations Subprogram

III. PLAN FOR THE BIENNIUM  
Part B. Program Changes

Department Priority 14 & 15 of 87

Name of Proposed Change: Building farm shop, office and equipment storage shed

1. Objective: To provide space for maintenance and storage of farm equipment and a suitable office space for the farm manager and secretary.
2. Strategies: This program will enable the farm operations to provide the necessary maintenance of farm equipment and establish a close working area whereby the farm secretary can keep accurate records of the maintenance of all farm equipment.

In order to accomplish the above goals, the following strategies will be employed:

- a. Select building sites.
- b. Build a combination farm shop, office and storage shed at the Umstead and Caswell Farm Units.
- c. Install hydraulic lift and fixed equipment.
3. Measures: This program will enable the farm to separate the maintenance of farm equipment from the shops owned by the institutions. The maintenance of all equipment is being repaired jointly by the farm and institution which makes it impossible to keep a close accounting of the cost of maintenance.

It is very hard to put an exact figure on the reduction in maintenance cost. We do know the farms spent approximately \$75,000 on equipment repairs per year.

4. Narrative: Over the past years, the farm operations and the institutions had a joint repair shop where all equipment was repaired. This repair shop in most cases is too small for all the equipment owned by the institution plus that which is owned by the farm. The institution is providing space for the farm office and this is very inconvenient for the farm personnel in many cases. This new program will provide space to store the farm equipment when it is not in use, also, it will provide space for proper maintenance of the farm trucks, tractors, combines, balers, etc.

This project will increase the life of the equipment because a good preventative maintenance schedule can be put into effect and the resale value of the equipment will be increased.

CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

State Farm Operations - Caswell Farm Unit

Request: Farm Shop, Office and Equipment Storage Shed

Priority 14 of 87

Description

1. This request entails the construction of a 5,400 sq. ft. shop, office and equipment storage building to be used by the farm. This facility will provide a farm shop, equipment storage and office. The facility will be constructed on existing N. C. Department of Agriculture property.
2. The facility will be located on the Caswell Farm Unit property in Kinston and will be constructed adjacent to the present farm facilities.
3. This building will provide space for the farm to repair the farm equipment and storage of this equipment when not in use and provide office space for the farm manager and secretary.
4. Estimated space required for activities:

Equipment storage	3,800 sq. ft.
Farm shop	1,200 sq. ft.
Farm office	400 sq. ft.
5. No unusual construction requirements.
6. This building will enable the farm to separate the maintenance of farm equipment from the shop owned by Caswell Center. Also, it will provide an office for the farm manager and secretary to work and provide added storage space so that all the farm equipment can be stored under shelter when not in use.
7. There is one other equipment storage building located on the farm. This building is not large enough for all the equipment. The present office space and garage is owned by the Caswell Center and that institution would continue using this space.
8. With this new building, we can store our equipment, provide space for an equipment maintenance schedule, repairs would be reduced and the equipment would have a longer life. Estimated value to the farm \$10,000 per year.
9. None



Justification

1. This requested project is needed so that we can provide space large enough where large farm equipment can be repaired:

Farm Shop - 1,200 sq. ft.

Office - 120 sq. ft./person

Storage shed - 3,800 sq. ft.

This space is required to provide cover for all equipment when not in use.

2. This project will enable the farm to maintain the equipment in a high state of repair and extend the total life of the equipment.
3. The current facilities are not large enough to provide space for proper maintenance of trucks, tractors, combines, balers, etc.
4. This project will increase the life of the equipment because a good preventive maintenance program can be put into effect and then the resale value of the equipment will be increased.

Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	-	-	-	-
Utilities	-	-	-	-
Construction	68,800	-	-	-
Fixed Equipment	6,200	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Subtotal	\$75,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$75,000	\$ -	\$ -	\$ -

## 2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual	-	-	-	-
Additional		650	650	650
Maintenance, Total Annual	-	-	-	-
Additional	-	-	-	-
Other, Total Annual	-	-	-	-
Additional	-	-	-	-

## 3. Source of funds: General Fund





## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

State Farm Operations - Umstead Farm Unit

Request: Farm Shop, Office and Equipment Shed

Priority 15 of 87

Description

1. This request entails the construction of a 5,400 sq. ft. shop, office and equipment storage building to be used by the farm. This facility will provide a farm shop, equipment storage and office. This facility will be constructed on existing N. C. Department of Agriculture property.
2. This facility will be located on the Umstead Farm Unit property in Butner and will be constructed adjacent to the present farm facilities.
3. This building will provide space for the farm to repair the farm equipment and storage of the equipment when not in use and provide office space for the farm manager and secretary.
4. Estimated space required:

-Equipment storage	3,800 sq. ft.
-Farm Shop	1,200 sq. ft.
-Farm Office	400 sq. ft.
5. No unusual construction requirements.
6. This building will enable the farm to separate the maintenance of farm equipment from the shop owned by John Umstead Hospital. Also, it will provide an office for the farm manager and secretary to work, and provide added storage space so that all farm equipment can be stored under shelter when not in use.
7. There are other equipment storage buildings located on the property of John Umstead Hospital but they will be removed and property sold for private use in the future. The present office space and garage is owned by John Umstead Hospital and the institution will continue using this space.
8. With this new building, we can store our equipment, provide space for an equipment maintenance schedule, repairs would be reduced and the equipment would have a longer life. Estimated value to the farm would be \$15,000 per year.

Justification

1. This requested project is needed so that we can provide space large enough where large farm equipment can be repaired.

Farm Shop - 1,200 sq. ft.

Office - 120 sq. ft./person

Storage Shed - 3,800 sq. ft.

This space is required to provide cover for all equipment when not in use.

2. This project will enable the farm to maintain the equipment in a high state of repair and extend the total life of the equipment.
3. The current facilities are owned by the John Umstead Hospital, we need to separate the farm from the general automotive shop where we can provide proper maintenance to all farm equipment.
4. This project will increase the life of the equipment because a good preventive maintenance program can be put into effect and then the resale value of the equipment will be increased.

Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	-	-	-	-
Utilities	-	-	-	-
Construction	68,800	-	-	-
Fixed Equipment	6,200	-	-	-
Subtotal	\$75,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	\$75,000	\$ -	\$ -	\$ -

## 2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual	-	-	-	-
Additional	-	650	650	650
Maintenance, Total Annual	-	-	-	-
Additional	-	-	-	-
Other, Total Annual	-	-	-	-
Additional	-	-	-	-

## 3. Source of funds: General Fund





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part B. Program Changes

Department Priority 16 of 87

Name of Proposed Change: Renovation of Three (3) Laying Houses

1. Objective: To provide an ample supply of eggs to the institutions at the least cost.
2. Strategies: This program will utilize the existing poultry houses at the Umstead Farm by remodeling these houses and moving all layers to one central location. The farms have a small layer operation at each location which because of size is inefficient at the present time.

In order to accomplish the efficiency in the poultry operations, the following strategies will be employed:

- a. Insulate the ceiling and side walls of three poultry houses - 30' x 300' each.
- b. Install air circulating fans.
- c. Install partial slats.
- d. Pour cement on part of the floor.
- e. Install new feeding and watering equipment.
3. Measures: The eggs are presently being produced on the different farm units. By combining these operations into one central production unit, the following savings are projected.

	<u>1977-78</u>	<u>1978-79</u>
Value of reduced labor	\$15,000	\$15,000
Value of reduced feed	<u>\$14,000</u>	<u>\$14,000</u>
Total Projected	\$29,000	\$29,000

4. Narrative: The present poultry operation is located at the various farms; therefore, the labor required per dozen eggs produced is approximately twice the requirement of good, large efficient farms. This is brought about because of the number of layers at each farm is small compared to the large poultry units within North Carolina. The projected farm plan would have one large laying operation and this would make it possible to produce eggs efficiently. This project will enable the farms to produce a constant supply of eggs.

This will eliminate storing thus maintaining a fresh supply of eggs and at the same time reduce the amount of labor, feed and utility usage.

1. Summary The eggs are presently being produced in the different farm units. It is suggested that the production be centralized in one unit. The following are the reasons for this suggestion:

1970-71	1971-72	Value of material used
215,000	215,000	Value of material used
215,000	215,000	Total production
215,000	215,000	

2. Summary The eggs are presently being produced in the different farm units. It is suggested that the production be centralized in one unit. The following are the reasons for this suggestion:

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2. Summary The eggs are presently being produced in the different farm units. It is suggested that the production be centralized in one unit. The following are the reasons for this suggestion:



## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

State Farm Operations - Umstead Farm Unit

Request: Renovation of three (3) Laying Houses.

Priority 16 of 87

Description

1. This request entails the remodeling of three laying houses of 27,000 sq. ft. These buildings will be used to house 27,000 layers. This facility is located on N. C. Department of Agriculture property.
2. This project is located on the Umstead Farm Unit property in Butner, Granville County.
3. These laying houses will be used to house 27,000 layers which will provide eggs for the institutions in Raleigh, Butner, Goldsboro and Kinston.
4. Space of existing laying houses:  

3 houses 9,000 sq. ft.	27,000 sq. ft.
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Each house will contain 9,000 layers in cages and we will use the existing utilities.
5. No unusual construction and no air condition.
6. This project is planned to economize on labor requirements needed to produce eggs for institutions.
7. With the remodeled buildings, it will be possible to produce all the eggs needed for the institutions at one location and reduce the labor needed in egg production by several employees. Also, by adding insultation to ceiling and side walls in these houses, the amount of feed required to produce a dozen of eggs will be reduced.
8. Does not apply.
9. None.

Justification

1. The scope of the requested project and space requirements are based upon the recommendations by the Poultry, Agriculture Engineering and Farm Management Departments of N. C. State University after doing a complete study of the existing facilities at all the farms.
2. With these improvements, it will be possible to produce eggs at one central location and control the supply of eggs. This will enable us to produce a rather constant supply of eggs.
3. This project is requested to maintain current service while at the same time reducing the amount of labor, feed and utility costs.
4. Savings from remodeling these three houses will be:

\$31,200 - labor/year

29,700 - feed/year

4,800 - utilities/year

Cost/Financing

## 1. Cost of Components

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	-	-	-	-
Utilities	-	-	-	-
Construction	59,000	-	-	-
Fixed Equipment	41,000	-	-	-
Subtotal	\$100,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	\$100,000	\$ -	\$ -	\$ -

## 2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual	-	-	-	-
Additional	-	4,320	4,320	4,320
Maintenance, Total Annual	-	-	-	-
Additional	-	-	-	-
Other, Total Annual	-	-	-	-
Additional	-	-	-	-

## 3. Source of funds: General Fund





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 17 &amp; 18 of 87

Name of Proposed Change: Swine Nurseries

1. Objective: To provide a more effective environment for the sow and her litter.
2. Strategies: These two nurseries, located at the Broughton Farm Unit and the Cherry Farm Unit will provide the farm operations with much needed facilities that are required to handle and grow large numbers of baby pigs.

In order to carry out our farm plans, the following strategies will be employed:

- a. Select a suitable site which is compatible to other swine buildings.
- b. Build a 40-sow nursery unit at Cherry Farm Unit, Goldsboro.
- c. Build a 20-sow nursery unit at Broughton Farm Unit, Morganton.
3. Measures: The following values can be realized by changing from pasture lots to a nursery.

	<u>1977-78</u>	<u>1978-79</u>
Litters farrowed	560	560
Additional pigs saved/year	840	840
Value of animals saved	\$33,600	\$33,600
Increased in crop value/acres to crops	\$18,500	\$18,500
Reduction in labor required	1460 hrs.	1460 hrs.
Value of reduced labor	\$ 4,380	\$ 4,380

4. Narrative: The farms have developed a farm management plan which started in 1976. This long range projected plan includes a swine nursery at Broughton and Cherry Farms. These nurseries will enable the farm operations to develop efficiency in the total swine program. These nurseries will enable us to reduce our swine pastures by 75 acres, thereby increasing our cropland by this amount.

The amount and maintenance of fencing will be reduced.

The time required for feeding and caring of the swine will be reduced by 1,460 hours per year.

The environment will be warmer and drier; therefore, diseases and parasites are minimized and the number of pigs raised per year will be increased by 840.



## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

State Farm Operations - Cherry Farm Unit

Request: Swine Nursery

Priority 17 of 87

Description

1. This request entails the construction of a 3,600 sq. ft. building to be used as a nursery for 400 litters of pigs per year. The facility will be constructed on existing N. C. Department of Agriculture property.
2. The facility will be located on the Cherry Farm Unit land in Wayne County near Goldsboro and will be constructed adjacent to the present swine facilities.
3. This building will be used as a pig nursery for 3,600 pigs per year for approximately two months of their life.
4. Estimated space required:  

40 pens at 90 sq. ft. each	3,600 sq. ft.
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5. No unusual construction requirements.
6. This project will enable us to move the sows and baby pigs from the farrowing house at 7 to 10 days of age and they will remain in this building until weaning. This new facility will be used in conjunction with the existing farrowing house and the finishing barn and will meet the long-term projected needs of the farm.
7. The pigs are being moved from the farrowing house to an open lot where death losses are very high due to the change in temperature and other elements. Also, there is a very high cost in repairing fences.
8. With this new facility, it will be possible to reduce the amount of land used for swine pastures and increase our grain land. Also, it will enable us to increase our swine operations and provide more pork for the institutions.
9. None

Justification

1. The scope of the requested project and space requirements for the brood sow and her litter is based upon the following standard:

Sow and litter of 10 pigs and walkway - 90 sq. ft.

This standard was compiled from research data and recommendations of N. C. State University.

2. This building will enable the farm to rear 1.5 more pigs per litter or 600 pigs per year.
3. This new building will enable us to reduce the stress associated in moving baby pigs from farrowing house to an open pasture. Also it will be able to reduce the parasites associated with pigs being on soil and provide a good sanitation program for the service.
4. Savings will be from reducing the amount of labor and equipment that is required when feeding brood sows and baby pigs on pasture. Also, we will be able to rear 600 more pigs per year.

Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY-1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	-	-	-	-
Utilities	-	-	-	-
Construction	-	54,300	-	-
Fixed Equipment	-	5,700		
Subtotal	-	\$60,000	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	-	\$60,000	\$ -	\$ -

## 2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual	-	-	-	-
Additional	-	-	1,100	1,100
Maintenance, Total Annual	-	-	-	-
Additional	-	-	-	300
Other, Total Annual	-	-	-	-
Additional	-	-	-	-

## 3. Source of funds: General Fund





## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

State Farm Operations - Broughton Farm Unit

Request: Swine Nursery

Priority 18 of 87

Description

1. This request entails the construction of an 1,800 sq. ft. building to be used as a nursery for 160 litters of pigs per year. This facility will be constructed on existing N. C. Department of Agriculture property.
2. This facility will be located on the Broughton Farm Unit land in Burke County near Morganton and will be constructed adjacent to the present swine facilities.
3. This building will be used as a pig nursery for 1,600 baby pigs per year for approximately two months of their life.
4. Estimated space required:  

20 pens at 90 sq. ft. each	1,800 sq. ft.
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5. No unusual construction requirements.
6. This building will enable us to move the sows and baby pigs from the farrowing house at 7 to 10 days of age and will remain in this building until weaning. This new facility will be used in conjunction with the existing farrowing house and the finishing barn and will meet the long-term projected needs of the farm.
7. The pigs are being moved from the farrowing house to an open lot, where death losses are extremely high due to the change in temperature and other elements. Also there is a very high cost in repairing fences.
8. With this new facility, it will be possible to reduce the amount of land used for swine pasture and increase our acreage in grain. Also, it will enable us to change our swine operations and save 1.5 pigs per litter.
9. None

Justification

1. The scope of the requested project and space requirements for the brood sow and her litter of 10 pigs is based upon the following standard:

Sow and litter of 10 pigs plus a walkway - 90 sq. ft.

The standard was compiled from research data and recommendations of N. C. State University.

2. This building will enable the farm to rear 1.5 more pigs per litter or 240 more pigs per year.
3. This new building will enable us to reduce the stress associated in moving baby pigs from farrowing house to an open pasture; also, we will be able to reduce the parasites associated with pigs being reared on the soil and provide a good sanitation program.
4. Savings will be from reducing the amount of labor and equipment that is required when feeding brood sows and baby pigs on pasture. Also, we will be able to rear 240 more pigs per year. Estimated savings \$4,800 per year.

Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	-	-	-	-
Utilities	-	-	-	-
Construction	-	26,900	-	-
Fixed Equipment	-	5,100	-	-
Subtotal	-	\$ 32,000	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	-	\$ 32,000	\$ -	\$ -



## 2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual	-	-	-	-
Additional	-	-	648	648
Maintenance, Total Annual	-	-	-	-
Additional	-	-	-	-
Other, Total Annual	-	-	-	-
Additional	-	-	-	-

## 3. Source of Funds: General Fund



## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 19 of 87

Name of Proposed Change: Grain Storage

1. Objective: To provide additional grain storage facilities at the Cherry Farm Unit.
2. Strategies: Purchase (3) Three (10,000) ten-thousand bushel capacity grain bins.
3. The plan of operation for the state farms provides for 300 acres of corn grown at the Cherry Farm Unit.

1977-781978-79

Additional grain storage capability

30,000 bu. 30,000 bu.

4. Narrative: Under the plan of operation which has been developed for the State Farm Operations, the various farm units will produce those crops for which the land is best suited. Because of the location, topography and soil type, the Cherry Farm Unit is more suited for grain production than the Broughton Unit. With this change, it would no longer be necessary to lease land at Broughton for corn production as the Cherry Farm Unit would be producing the quantities required by the Broughton Farm. This increased production at Cherry will necessitate additional grain storage facilities.





5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Grain storage

Priority 19 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric. Equipment	\$22,500	-	\$22,500
	<hr/>	<hr/>	<hr/>
TOTAL	\$22,500	-	\$22,500
Non-recurring	\$22,500		





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 20 of 87

Name of Proposed Change: Conversion to Liquid Fertilizer

1. Objective: To change from dry to liquid fertilizer at the Caswell Farm Unit.
2. Strategies:
  - a. Determine the proper size of liquid fertilizer applicator.
  - b. Purchase a liquid fertilizer applicator.
3. Measures: In the eastern area of North Carolina, the use of liquid fertilizer has largely replaced the dry granular form of fertilizer. The liquid fertilizer is more readily available and has the added advantages of being much easier to apply by mechanical means. Another advantage is the fact that herbicides can be added to the liquid fertilizer thus eliminating the need for a separate application.

	<u>1977-78</u>	<u>1978-79</u>
Units of liquid fertilizer needed	124,800	124,800
Tons of fertilizer needed	416	416

4. Narrative: This applicator will be mounted on a two-wheel trailer and will apply fertilizer at width of 32 feet. The soil is very sandy at Kinston and in the spring there is a lot of soil movement due to wind. Therefore, in order to conserve our soil on this farm, we have started using no-till planting of corn and soybeans. The no-till system of planting requires liquid application of nitrogen and different herbicides to control weeds.

The use of the liquid fertilizer applicator will result in a considerable savings in labor, machinery and machinery operating cost. The previous practice of applying bagged fertilizer was used in the past but with the development of modern technology, we can effect considerable economy in our farm operation.

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5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Conversion to liquid fertilizer

Priority 20 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric. Equipment	\$5,000	-	\$5,000
	<hr/>	<hr/>	<hr/>
TOTAL	\$5,000	-	\$5,000
Non-recurring	\$5,000		





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 21 of 87

Name of Proposed Change: Feed Manufacturing Program

1. Objective: To improve the feeding program at the Broughton Farm Unit.
2. Strategies:
  - a. Determine the type of bulk feed delivery system needed.
  - b. Purchase bulk feed self-unloading body (456 cubic feet capacity).
  - c. Mount bulk feed body on existing truck.
3. Measures: The feed is manufactured for the poultry, dairy, swine and beef cattle at the Broughton Farm Unit.

	<u>1977-78</u>	<u>1978-79</u>
Tons of feed manufactured	2,800	2,800
Tons of supplement purchased	240	240
Tons of feed moved in bulk truck	3,040	3,040

4. Narrative: In years past the farm was operated as a part of the hospital and thus had available an unlimited supply of labor by the patients. The feed for the farm was manufactured and bagged then hauled from the feed mill to the livestock feeding barns. With the change in hospital policy and operation, the farms no longer have patients available to provide labor and thus must hire employees for this job. Another item involved in the operation was the purchase and use of burlap bags. The price of this item has increased greatly.

With the use of the proposed bulk feed body, the mixed feed will be augered directly from the feed mixer into the bulk feed body. It will then be moved to the livestock feeding areas and power augered into the bulk storage bins. With this change and with other changes which we plan to make, we will be able to reduce the number of employees at the farm thus resulting in considerable monetary savings to the state.





5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Feed manufacturing program

Priority 21 of 265

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric. Equipment	\$8,200	-	\$8,200
	<hr/>	<hr/>	<hr/>
TOTAL	\$8,200	-	\$8,200
Non-recurring	\$8,200		



## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 22 of 87

Name of Proposed Change: Portable feed grinder and mixer

1. Objective: To improve the ration of dairy and beef cattle by adding bulk fiber materials at the Umstead Farm Unit.
2. Strategies:
  - a. Select the type and model of a grinder-mixer.
  - b. Purchase from state contract supplier.
3. Measures: This is a portable grinder-mixer and will grind and mix approximately 1,040 tons of feed per year.
4. Narrative: This piece of equipment is essential for State Farm Operations to improve the feeding practices and to produce the most efficient use of farm produced forage and similar materials. The grinder-mixer will be used to grind dairy and beef cattle feed. The use of this equipment will permit the production of a more complete ration and will include hay and other high fiber content materials. Advantages of the use of the grinder-mixer are: (a) ability to use farm produced bulk feed items such as hay, ground ear corn, corn cobs, etc., (b) the use of this complete ration will reduce the insistence of bloat in cattle, and (c) a more economical feed ration can be produced with the use of the grinder-mixer.





5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Portable feed grinder and mixer

Priority 22 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric. Equipment	\$3,500	-	\$3,500
	<hr/>	<hr/>	<hr/>
TOTAL	\$3,500	-	\$3,500
Non-recurring	\$3,500		





## Agriculture

## State Farm Operations Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 23 of 87

Name of Proposed Change: Free stall partitions for lounging barns at Dix Farm Unit

1. Objective: To provide a facility which has comfort and will use a minimum of bedding.
2. Strategies:
  - a. Purchase 100 metal partitions.
  - b. Install partitions in each of four barns.
3. Measures: It is very difficult to measure the exact results from using free stalls. The main advantages are: (a) the cows can be kept cleaner with less labor, and (b) we will use about one-third less bedding.
4. Narrative: The dairy facilities for housing milk cows at the Dix Farm Unit is the old type loose housing arrangement. There are no restrictions on the movement of the cows. They are able to move freely throughout the barn.

The use of free stalls in the existing barn will provide for an individual space in which each cow can lie with better arrangements to take care of the animal waste. This will result in cleaner facilities, cleaner animals and cleaner milk. The health departments highly recommend this type of barn arrangement.



5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Priority 23 of 87

Free stall partitions for lounging barns at Dix Farm Unit

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric. Equipment	\$2,400	-	\$2,400
	<hr/>	<hr/>	<hr/>
TOTAL	\$2,400	-	\$2,400
Non-recurring	\$2,400		





## Agriculture

## State Farm Operations Subprogram

III. PLAN FOR THE BIENNium  
Part B. Program Changes

Department Priority 24 of 87

Name of Proposed Change: Installing farrowing crates in farrowing house at Dix Farm Unit

1. Objective: To improve the farrowing facilities in present farrowing house.
2. Strategies:
  - a. Purchase 20 complete farrowing crates (include feeding and watering system on each crate).
  - b. Remove the existing farrowing pens.
  - c. Install the farrowing crates.
3. Measures: It is very difficult to measure the results from installing farrowing crates. The main advantage in using farrowing crates is the sow and baby pigs are easier to work with because of the confinement.
4. Narrative: The farrowing facilities at Dix consists of 40 individual pens. The facilities would be changed to farrowing in crates, then moving sow and litter to individual pens.





5. Funding Requirements:

Agriculture (Code: 28021 )

State Farm Operations

Priority 24 of 87

Installing farrowing crates in farrowing house at Dix Farm Unit

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5300 Agric.Equipment	\$4,500	-	\$4,500
	<hr/>	<hr/>	<hr/>
TOTAL	\$4,500	-	\$4,500
Non-recurring	\$4,500		



## Agriculture

## Agronomic Services Subprogram

III. PLAN FOR THE BIENNIUM  
Part B. Program Changes

Department Priority 10 of 87

Name of Proposed change: Agronomic program improvements

1. Objective: To provide additional agronomic diagnostic services to satisfy the present projected demands which cannot be adequately met with present resources.
2. Strategies: This program will utilize the additional resources to handle the increase in samples submitted to the Soil Testing, Plant Analysis and Nematode Advisory services. An attempt will be made to honor all request for new diagnostic test (copper and zinc) which are so important to modern-day high production agriculture.

In order to accomplish the above goals the following strategies will be employed:

- a. Hire an Agricultural Chemist to handle the work load resulting from the increase in sample numbers. This person will also make the new diagnostic test (copper and zinc).
  - b. Purchase appropriate laboratory equipment to handle the increase workload.
  - c. Purchase laboratory and office supplies necessary for increased workload.
3. Measures:

Cross-utilization of equipment and personnel are presently being carried out within the Soil Testing, Plant Analysis, and Nematode Advisory sections of the Agronomic Division in order to operate as efficiently as possible. However, the following projected increase in workload dictates additional resource needs if these demands are to be met.

	<u>1977-78</u>	<u>1978-79</u>
Soil Testing		
Farmers and Homeowners served	200	400
Number of samples	2,000	4,000
Number of determinations	22,300	42,300
Nematode Advisory		
Farmers and Homeowners served	1,000	1,670
Number of samples	3,000	5,000
Number of determinations	45,000	75,000
Plant Analysis		
Farmers and Homeowners served	108	208
Number of samples	500	1,000
Number of determinations	6,000	12,000



4. Narrative: Over the past two years there has been approximately a 20 percent increase in workload of the Soil Testing section of the Agronomic Division and a significant additional increase is projected over the next biennium. In addition four new diagnostic test (volume weight, lime requirement, copper, and zinc) have been added to satisfy the needs and demands of present day agriculture. Through various efficiency moves, we have been able to make volume weight and lime requirement diagnostic test on all soil samples. However, because of limited resources we have only been able to perform copper and zinc test on a limited number of soils. Both of these diagnostic test are extremely important for high production agriculture.

In addition, a significant increase in workload of the Plant Analysis and Nematode Advisory sections are anticipated.

If we are to provide the additional agronomic diagnostic services being demanded by the citizens of North Carolina the request for additional resources must be provided.

5. Funding Requirements:

Agriculture (Code: 28021 )

Agronomic Services Subprogram

Agronomic Program Improvements

Priority 10 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 9,528	\$ 9,528	\$19,056
(1) Agricultural Chemist @ \$9,528			
1810 Social Security	567	576	1,143
1820 Retirement	869	869	1,738
1830 Hospitalization Insurance	267	267	534
2320 Laboratory Supplies	2,750	5,000	7,750
2600 Office Supplies & Materials	1,375	2,500	3,875
3210 Telephone Service	100	200	300
3250 Postage	200	345	545
3600 Freight, Express delivery	100	175	275
5100 Office Furniture & Equipment	600	-	600
5303 Laboratory Equipment	<u>10,000</u>	<u>5,000</u>	<u>15,000</u>
Total	\$26,356	\$24,460	\$50,816
Non-recurring	\$ 5,600	\$ 5,000	





Agriculture

Federal-State Crop Reporting Service Program

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

1. Objective: To alter survey design to properly fit the increasingly specialized survey sampling frames and to develop better computer systems and programs to improve survey data input review and output evaluation.
2. Strategies: Although the indicated objectives are dynamic, they are expected to be accomplished with no additional budget requested at this time.



Agriculture

Warehouse System Operations Subprogram

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

Name of Proposed Change: Reactivate State Warehouse System to Full Service

1. Objective: To provide modern warehousing facilities to farmers and agri-businesses, and to provide the related services needed to complement the economic development of North Carolina.
2. Strategies: Following the expected favorable decision on the litigation now in process, we will consult with farmers, farm organizations, agri-businesses and other elements of our agricultural economy and obtain their input into developing the most effective warehouse system possible to meet the growing needs of North Carolina.





Agriculture

Analytical Administration Subprogram

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

Department Priority 11 of 87

Name of Proposed Change: Management and Dispersal of Equipment, Supplies and Materials Within the New Analytical Laboratory

1. Objective:

Internal management of receipt and dispersal of equipment, supplies, and materials, as well as inventory maintenance.

2. Strategies:

The change will involve hiring of one Stock Supervisor.

3. Measures:

Orderly flow in described functions.

4. Narrative:

Relocation of the Food and Drug Protection Division into the new Blue Ridge Road Analytical Laboratory brings with it internal management problems not evidenced at the downtown location. Package receipt and delivery service will not be provided. Pickup of shipped packages at the bus depots (such shipment necessitated by problem of sample spoilage if carried out by U. S. mail) will involve a twelve-mile round trip once daily.

Stockpiles of universally needed items such as glassware, reagents, filter paper, etc. will be maintained and inventoried to assure adequate supplies and most efficient usage. Absence of a stock room at the present location means various laboratory units are not cognizant of what reagents and supplies are on hand and available.





5. Funding Requirements:

Agriculture (Code: 28021 )

Analytical Administration Subprogram

Management and Dispersal of Equipment, Supplies and Materials Within  
the New Analytical Laboratory Priority 11 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 7,332	\$ 7,332	\$14,664
(1) Stock Supervisor, @ \$7,332			
1810 Social Security	436	444	880
1820 Retirement	669	669	1,338
1830 Hospitalization Insurance	267	267	534
2500 Motor Vehicle Operation	250	250	500
2600 Office Supplies and Materials	25	25	50
3210 Telephone Service	120	120	240
5100 Office Furniture and Equipment	<u>350</u>	<u>-</u>	<u>350</u>
Total	\$ 9,449	\$ 9,107	\$18,556
Non-recurring	\$ 350	-	



Agriculture

Foods, Drugs and Cosmetics Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 60 of 87

Name of Proposed Change: Assistance in development and utilization of advanced laboratory methodology for Division Testing Programs.

1. Objective:

To utilize laboratory instrumentation which yields most rapid, accurate and precise data for compliance programs and to support international collaborative testing programs for development of standard methods of analysis.

2. Strategies:

- a. Purchase of certain pieces of laboratory instrumentation.
- b. Annual monetary support of the Association of Official Analytical Chemists according to the formula recommended by the National Association of State Departments of Agriculture.

3. Measures:

- a. Maintenance of a high level of performance in assays by the analytical laboratories personnel, as evidenced by the statistical ranking of these laboratories in collaborative check sample series involving as many as 100 laboratories throughout the United States (consistently in top 33 1/3% of laboratories, with rankings in top 10% on occasion).
- b. Continuous development of authenticated methods which emanate in a completely revised international compendium "Methods of Analysis - Association of Official Analytical Chemists" each five years, as well as annual updates to such methods.

4. Narrative:

Maintenance of a well-equipped laboratory is absolutely essential to possessing a balanced capability for performing the gamut of regulatory analyses. New equipment which offers capacity not present in previous models, or which allows the performance of analyses not previously possible, must constantly be added to keep our laboratories capability commensurate with industrial changes.

The Association of Official Analytical Chemists (AOAC) is the source group from which standardized methods are developed for use in all control laboratories throughout the country. Recently, the U. S. Food and Drug



Administration, which had been almost completely subsidizing AOAC activities, has advised that AOAC must be more amply supported from other federal and state regulatory agencies.

NASDA has indicated its support of AOAC by suggesting the application of a formula for financial aid from states, amounting to \$750 per million population per year. This would amount to \$3,750 annually from North Carolina. Since approximately 95% of the methodology used in the NCDA laboratories for analysis of fertilizers, feeds, foods, drugs and pesticides is from AOAC sources, the request appears justified.

State revenues generated by the food, fertilizer, feed and pesticide programs during FY 74-75 amounted to \$1,174,166. Regulation of these commodities is heavily dependent on continuation of AOAC methodology development.

5. Funding Requirements:

Agriculture (Code: 28021)

Foods, Drugs and Cosmetics Subprograms

Assistance in Development and Utilization of Advanced Laboratory

Methodology for Division Testing Programs

Priority 60 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
4901 Subscriptions and Dues	\$ 3,750	\$ 3,750	\$ 7,500
5303 Equipment (see attached List with Justifications)	<u>50,980</u>	<u>38,955</u>	<u>89,935</u>
Total	\$54,730	\$42,705	\$97,435
Non-recurring	\$50,980	\$38,955	\$89,935





Agriculture

Foods, Drugs and Cosmetics Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 61 of 87

Name of Proposed Change: Establishment of Area Work Posts

1. Objective:

Establishment of two area work posts to serve eight field inspectors.

2. Strategies:

Rental of office space for establishment of two area work posts - Greenville and Statesville - so as to provide desk, freezer, sample container, and document storage space not now available in homes of inspectors.

3. Measures:

Orderly flow of samples and reports to central laboratory.

4. Narrative:

Food field inspectors have heretofore maintained their offices at home. Increased workloads in the form of more samples to be taken, revision and lengthening of inspection reports, and storage of prior inspection reports for review have placed burdens on these personnel, most of whom cannot afford to bear cost of extensive office and sample storage space in their homes.

Additionally because of initiation of a microbiological sampling program, it is necessary to have cooler boxes, cold packs, and freezer storage space for samples and the chilling of cold packs for shipment. All take space. Several inspectors have complained of having to remove food from their own home freezers to make room for state samples - this from a group whose income is marginal at best.

Establishment of two work posts - at Greenville and Statesville - will service eight field inspectors, centrally placing the location within approximately 35 miles of each inspector.



5. Funding Requirements:

Agriculture (Code: 28021)

Foods, Drugs and Cosmetics Subprogram

Establishment of Area Work Posts

Priority 61 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3210 Telephone Service	\$ 250	\$ 250	\$ 500
3300 Utilities	600	600	1,200
4130 Rental of Office 1,000 ft <sup>2</sup> @ \$6/ft <sup>2</sup>	6,000	6,000	12,000
5100 Office Furniture and Equipment	1,400		1,400
5303 Laboratory Equipment	600		600
	<hr/>	<hr/>	<hr/>
Totals	\$8,850	\$6,850	\$15,700
Non-Recurring	\$2,000		\$ 2,000





Agriculture

Foods, Drugs and Cosmetics Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 65 of 87

Name of Proposed Change: State laboratory assistance for local health departments

1. Objective:

To provide microbiological data to local health departments in regard to sanitation in meat markets and other areas.

2. Strategies:

Receipt and assay of meat, sandwich and other food samples for local health departments and reporting of results back to these units for their use in enforcement of sanitation regulations.

3. Measures:

The sanitation quality within retail establishments is expected to improve. Limited results utilized by Wake County Health Department for fiscal years 74-76 have shown a drop in bacterial counts of retail markets manufacturing ground beef.

4. Narrative:

While no microbiological standards exist for sanitation in meat markets in North Carolina, the Wake County Health Department approached NCDA for assistance in this area approximately two years ago. Due to limited resources, only two samples per week could be handled by our laboratories. Utilization of this information by the Wake County Health Department has led to an improvement in the sanitation quality of several markets found to be significantly violative in the handling of their products, however.

NCDA also analyzes all dairy products for seven counties which have no laboratory facilities, and which must have these analyses performed to maintain their rating for the Interstate Milk Shippers Conference.

Further than this, the Cumberland County Health Department has approached NCDA to assist them in the regulation of the microbiological quality of sandwiches.

Local health departments have little capability in regard to microbiological assay of foods. The problems encountered in meat markets, sandwich and salad manufacturers, and other establishments point to a shared local-state relationship which will benefit the public.





5. Funding Requirements:

Agriculture (Code: 28021)

Food, Drug and Cosmetics Subprogram

State Laboratory Assistance for Local Health Departments

Priority 65 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$20,784	\$20,784	\$41,568
(2) Agricultural Microbiologists @ \$9,948 (2nd Step \$10,392)			
1810 Social Security Contribution	1,237	1,257	2,494
1820 Retirement Contribution	1,895	1,895	3,790
1830 Hospitalization Insurance	534	534	1,068
2600 Office Supplies and Materials	9,000	9,000	18,000
3100 Travel Expense	500	500	1,000
3250 Postage	500	500	1,000
3520 Repairs and Maintenance - Building	500	500	1,000
4903 General Expense	250	250	500
5303 Laboratory Equipment	<u>7,860</u>	<u>---</u>	<u>7,860</u>
Total	\$43,060	\$35,220	\$78,280
Non-recurring	\$ 7,860	--	--



## Agriculture

## Foods, Drugs and Cosmetics Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part B. Program Changes

Department Priority 75 of 87

Name of Proposed Change: Administrative Assistance in Food Branch Programs

1. Objective:

Assistance in operation of Food Branch Programs.

2. Strategies:

Hire an assistant Food Administrator who will aid and act in behalf of the Food Administrator in many of the day-to-day operations, i.e. review of minor regulatory actions with compliance officers, recommendations for major regulatory actions, coordinating sampling and assignment of samples, issuance of reports, information gathering (surveys, budgets), and handling of special events.

3. Measures:

The benefit to the public will be indirect since the hiring of this individual will allow the Food Administrator to place more time on Branch planning, coordination of field and compliance activities, evaluation of potential problem areas, and assimilation of information to be used in new programs.

4. Narrative:

Performance indicators for FY 71-72 through 75-76 and projections through FY 78-79 show general increases in numbers of establishments inspected, samples taken and analyzed, warning letters to industry, consumer complaints and embargoes. This reflects a revised compliance philosophy: more extensive inspections (records reviews, revised inspection reports, photographs, samples to document violative conditions), issuance of warning letters only when an intention for further Department legal action is likely if the violative firm takes insufficient corrective action, and call for hearings when necessary to address attention to correction by violative firms.

Some complex problems necessitating in-depth study have been addressed by the Division Administration (mold toxins in food and feedstuffs, date code expiration of dairy products, low-acid food cannery deficiencies, and initiation of the complete revision of food laws and regulations).

This has been accomplished during a time when the Division has received a sixfold increase in number of consumer complaints as compared to FY 71-72, each of which has been personally investigated. A large percentage of the time of both the Division Director and Deputy Director (also the Food Administrator) has been delegated to day-to-day operations, forfeiting time of both individuals needed for other activities.





5. Funding Requirements:

Agriculture ( Code: 28021 )

Foods, Drugs and Cosmetics Subprogram

Assistance of Food Administrator with Operations of Food Branch Programs  
Priority 75 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Assistant Food Admini- strator, @ \$15,624	\$15,624	\$15,624	\$31,248
1810 Social Security	930	945	1,875
1820 Retirement	1,425	1,425	2,850
1830 Hospitalization Insurance	267	267	534
2600 Office Supplies and Materials	100	100	200
3100 Travel	500	500	1,000
3950 Employee Education Expense	100	100	200
5100 Office Furniture and Equipment	600	-	600
5600 Books	<u>50</u>	<u>50</u>	<u>100</u>
Total	\$19,596	\$19,011	\$38,607
Non-recurring	\$ 600	-	





## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 13 of 87

Name of Proposed change: Boll Weevil Eradication1. Objective:

To eradicate the boll weevil as an economic pest of cotton from North Carolina and to demonstrate the technical and operational feasibility of eradicating this pest from its present range of distribution in the United States.

2. Strategies:

Beginning in 1977 a trial boll weevil eradication program will be executed over a three year period on approximately 3,000 acres of cotton in Virginia and 97,000 acres in North Carolina. During the first two years, operations will be conducted on approximately 45,000 acres in a contiguous area of North Carolina and Virginia. In the third year of the trial program the rest of the acreage in North Carolina would be added and additional acreage in South Carolina would be included.

This program is a cooperative effort between the North Carolina Department of Agriculture (NCDA); Virginia Department of Agriculture and Commerce; United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA, APHIS); and the South Carolina Crop Pest Commission. Other agencies such as the North Carolina Agricultural Extension Service (NCAES); United States Department of Agriculture, Agricultural Stabilization and Conservation Service and grower groups will also have active roles in the program.

In the program operation USDA, APHIS will have responsibility for field operations, monitoring boll weevil populations and applying eradication measures. The NCDA will have responsibility for enforcement of the provisions of the Boll Weevil Eradication Law passed by the North Carolina General Assembly in 1975. These provisions include mandatory participation by all cotton growers, cost sharing, inspections, quarantine authority, etc., and administration of program funds. These responsibilities will necessitate additional staffing to meet program requirements and the legislative mandate. The NCAES will provide information to growers and make control recommendations for other pests.

All suppression measures applicable to cotton production in North Carolina will be integrated into a total eradication program. These measures have been demonstrated to be effective in other trials and include the use of trap crops, pheromone baited traps, insecticide



treatments, scouting, reproduction-diapause and defoliation, sterile insect release and other measures.

### 3. Measures:

Monetary benefits of all of the ramifications of this program, if successful, will be hard to assess because of the many intangible benefits. The cotton grower will not be burdened with the cost of boll weevil control and can adopt a more realistic pest management program for other cotton pests which should also lead to lessening the production costs. Cotton yields will increase. These factors should all contribute to making cotton a more viable crop in the agricultural economy of North Carolina. From an environmental position this program offers many benefits. There would be a tremendous lessening of insecticides released in the ecosystem and there would be a general enhancement of the populations of beneficial organisms associated with the presence of cotton.

#### Value of Cotton Production Under Alternate Boll Weevil Control Systems In North Carolina <sup>1/</sup>

<u>Program</u>	<u>Harvested Acres</u>	<u>Percent Loss to Boll Weevil</u>	<u>Value of Production</u>	
			<u>Total (000)</u>	<u>Per Acre</u>
Eradication	169,000	0.00	\$34,704	\$204.74
Present Control	169,000	17.66	28,575	168.58
No Chemical	169,000	71.40	9,925	58.56

<sup>1/</sup> Acreage and value of production taken from 1970-73 (inclusive) averages obtained from Statistical Reporting Service. Price does not include subsidy payments. Loss (percentages) are from 1974 Survey - Boll Weevil Losses; conducted by the National Cotton Council in conjunction with State Extension Specialists.

### 4. Narrative:

The boll weevil is recognized as the most economically important insect pest in terms of annual losses in agriculture in North Carolina and the United States. More pesticides are applied for control of this insect pest than any other pest in the United States. The boll weevil is an introduced pest from Mexico and presently inhabits 85 percent of the cotton growing area in the United States.

North Carolina was selected as the area to begin the boll weevil eradication trial for many reasons. The State is the most northern region of cotton production in the United States and has a degree of isolation from other cotton. The eradication of the boll weevil would also be of greatest economic benefit to North Carolina growers. Other wild host plants for the boll weevil to reproduce are not present in the State. Growers in North Carolina have demonstrated their support for the program in a very dramatic fashion and that is to indicate that they will be willing to pay part of the cost of this program.

Funding for this program is to be generated from three sources; A Federal appropriation; State matching funds; and cotton grower contributions. The cost sharing proposal developed calls for 25 percent state and federal shares with growers contributing the remaining 50 percent. At the end of a three year trial period, if the program is successful, it would be proposed to extend the effort over the entire area inhabited by the boll weevil in progressive steps.





5. Funding Requirements:

Agriculture (Code: 28021)

Plant Protection and Biological Asset

Boll Weevil Eradication Priority 13 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 31,332	\$ 31,332	\$ 62,664
(1) Pest Control Specialist			
@ \$12,444 (3rd Step)			
(1) Pest Control Inspector			
@ \$10,872 (2nd Step)			
(1) Accounting Clerk (IV)			
@ \$8016			
1810 Social Security	1,864	1,896	3,760
1820 Retirement	2,857	2,857	5,714
1830 Hospitalization Insurance	801	801	1,602
2500 Motor Vehicle Operation	4,400	4,400	8,800
2600 Office Supplies & Materials	950	950	1,900
2990 Other Supplies & Materials	600	600	1,200
3100 Travel	4,400	4,400	8,800
3210 Telephone Service	500	500	1,000
3250 Postage	250	250	500
3800 Data Processing Services	6,000	4,200	10,200
4130 Rent of Offices	1,200	1,200	2,400
4500 Insurance and Bonding	68	68	136
5100 Office Furniture & Equipment	500	-	500
5400 Purchase of Motor Vehicles	8,058	-	8,058
Reserve for States Contribution			
(State Share)	<u>1,880,514</u>	<u>1,464,608</u>	<u>3,345,122</u>
Total	\$1,944,294	\$1,518,062	\$3,462,356
Non-recurring	\$ 8,558		





## Agriculture

## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Departmental Priority 25 of 87

Name of Proposed Change: Farm Commodity Export Certification

1. Objective: The past several years have seen a tremendous increase in the demands for prompt certifications of agricultural commodities and other farm products requiring phytosanitary certification from plant pests as a prerequisite for export. Most foreign countries have increased the level of certification required for entry of commodities capable of spreading plant pests. With the tremendous increase in more rapid modes of transportation and improvements in storage and preservation procedures plus unprecedented increases in demand, many more farm commodities are being exported which require point of origin certification.
2. Strategies: A Survey Entomologist and Plant Pathologist will organize and direct field surveys for and compile data on the hundreds of pests and diseases on which phytosanitary certification is required by foreign countries as a prerequisite for export. A comprehensive, organized source of information on the presence, abundance, distribution, and biology of these pests and diseases will be made readily available to our inspectors for use in promptly issuing point of origin phytosanitary certificates on commodities to be exported.

The survey specialists will utilize traps, sex lures, and other recent advances in survey techniques in developing a long-term record of pest occurrence, developing a pest forecasting system, and monitoring agricultural production and control operations. The specialists will work with exporters, USDA inspectors, and other countries in facilitating the export of our commodities.

3. Measures: Monetary benefits to North Carolina growers and shippers is difficult to assess. Total exports of commodities requiring certification number in the millions of dollars with individual shipments varying from a few articles to several trailer loads. Measures to be taken will provide available answers to questions regarding the availability of certain products for export to countries requiring certification against specific pests. At the present time we cannot provide information as to areas where products are available that meet specific requirements of certain countries which state that the commodity must be produced in an area that is free from a certain pest. There are approximately twenty-five major different plant pests which various countries require a statement that the produce was produced in an area that was free of the pest.

There are also numerous other minor pests which require survey information. Some of these pests include European Corn Borer, Southern bacterial wilt, Potato tuber moth, fire blight, strawberry and peach viruses, and Colorado potato beetle. These are all pests which are known to occur in North Carolina, but whose frequency of occurrence and distribution is not known.

4. Narrative: There has been a tremendous increase in the export of commodities from North Carolina for which a phytosanitary or pest freedom certification is needed. Foreign countries are raising their standards on export commodities resulting in a higher level of complexity required for issuance of certificates. Emphasis on inspection and certification of commodities has shifted from the port of departure to the point of origin for expediency and accuracy of adherence to pest survey conditions. All this has added up to a tremendous increase in issuance of phytosanitary certificates and in the need for a higher level of information and data on which to base the certification. Our inspectors have widened their areas of responsibility and must have more support and available data in order to perform at the required level.



## 5. Funding Requirements:

Agriculture (Code: 28021)

Plant Protection and Biological Asset

Farm Commodity Export Certification      Priority 25 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$39,708	\$39,708	\$ 79,416
(1) Survey Entomologist @ \$13,632			
(1) Survey Plant Pathologist @ \$13,632			
(1) Survey Tehcnician @ \$12,444			
1810 Social Security	2,363	2,402	4,765
1920 Retirement	3,622	3,622	7,244
1830 Hospitalization Insurance	801	801	1,602
2320 Laboratory Supplies	1,000	1,000	2,000
2500 Motor Vehicle Operation	4,400	4,400	8,800
2600 Office Supplies & Materials	500	500	1,000
2990 Other Supplies & Materials	750	750	1,500
3100 Travel	4,500	4,500	9,000
3210 Telephone Service	450	450	900
3250 Postage	350	350	700
4500 Insurance and Bonding	90	90	180
4901 Subscriptions and Dues	150	150	300
5100 Office Furniture and Equipment	900	900	1,800
5300 Agricultural Equipment	1,200	1,200	2,400
5303 Laboratory Equipment	1,000	1,000	2,000
5400 Purchase of Motor Vehicles	<u>9,635</u>	<u>          </u>	<u>9,635</u>
TOTAL	\$71,419	\$61,823	\$133,242
Non-recurring	\$12,735	\$ 3,100	





## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 33 of 87

Name of Proposed change: Pest Control Insect Laboratory Support Program1. Objectives:

To provide needed biological support to the Pest Control Division field operations and improve Division pest control activities. To make Division expertise and resources more readily available to the current needs of those preparing environmental impact statements, conducting pollution and use studies, conducting endangered and threatened species studies, integrated control and other environmental and biological action programs.

2. Strategies:

The additional resources will provide the key identification and curatorial support facilities which will enable the Division to utilize the following strategies in making its services more current and readily available. Field specialists will receive adequate biological assistance and training. Access to our insect collection and biological resources will be made readily available to those preparing environmental impact statements and those using insects as pollution and environmental use indicators. The status of endangered and threatened species will be monitored from the agricultural and pest control aspect. Technical expertise will be provided in our community assistance and pest control operations. Research and field surveys will be conducted to add to our knowledge of overall insect conditions in North Carolina. A pest forecasting system will be developed to assist farmers, home owners, and gardeners in making early and timely pest control plans. Our monitoring and survey program for new pests will be updated and strengthened. New methodology utilizing pheromones, biological controls, and computerizations will be developed and adapted to our programs. The insect collection will be curated and taxonomically updated and encouragement and assistance will be provided both amateur and professional biologists in their activities and the publication of their work results. The museum aspects of the insect collection will be strengthened in cooperation with the State Museum. Assistance will be given to the Division Biological Control and pest management programs.

3. Measures:

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
Number of training aids provided	1,000	1,000	2,000



	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
Number of Pest Forecasts provided	60	240	300
Number of quarantined pest and endangered and threatened species survey samples screened	300	1,000	1,300
Number of accessions to museum and collection	3,000	5,000	8,000
Number of Pheromone traps and monitoring device data collections	200	500	700
Number of museum specimens curated	150,000	150,000	300,000

#### 4. Narrative:

Since the 1890's the North Carolina Department of Agriculture has developed a complete and comprehensive resource collection of information and museum of insects and other arthropods that have occurred in the State. The information and resources contained are extremely valuable and North Carolina is one of the few fortunate states having a relatively complete documented biological history of its invertebrate resources. Our state needs the benefits of this source of data in solving our current environmental, pest management, and land use problems. Additional curatorial help will be the key to releasing a great amount of help to our citizens.

The insect collection and museum has been understaffed for the past few years making it impossible for us to perform some of the services that currently would be in the best interest of the State. The insect laboratory is the only laboratory in the Department that operates without a full-time technician or curator. This is not consistent with the basic importance of insects to and on our lives and economy.

This laboratory is a complete facility that has the resources to strengthen our entire agricultural program. The primary need is manpower.

Our field organization is in need of more entomological assistance from the staff. This additional resource would help alleviate, but not solve, our need for a full-time entomologist to work with our field organization.



5. Funding Requirements:

Agriculture (Code: 28021)

Plant Pest and Biological Asset Subprogram

Insect Laboratory Support Pest Control Programs

Priority 33 of 265

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Curator - Insect Collection @ \$9,948	\$ 9,948	\$ 9,948	\$ 19,896
1810 Social Security	592	602	1,194
1820 Retirement	907	907	1,814
1830 Hospitalization Insurance	267	267	534
2320 Laboratory Supplies	200	200	400
2600 Office Supplies	200	200	400
3100 Travel	1,200	1,200	2,400
3210 Telephone Service	150	150	300
5100 Office Furniture & Equipment	1,355		1,355
5500 Other Equipment	1,000		1,000
4901 Subscriptions & Dues	<u>50</u>	<u>50</u>	<u>100</u>
Total	\$15,869	\$13,524	\$ 29,393
Non re-curring	\$ 2,355	-	



## Agriculture

## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 63 of 87

Name of Proposed change: Plant and Biological Mountain Field Facility1. Objective:

To provide a permanent field location in western North Carolina from which to conduct plant protection and biological program operations.

2. Strategies:

Purchase land for location of permanent field facility in Avery County area of western North Carolina. Field personnel are presently working out of rented space. It would be advantageous to develop a permanent facility where maximum flexibility to meet all division program needs could be located.

Certification of plant material and other commodities are essential for movement in interstate commerce. Ninety percent of the nursery stock grown in northwestern North Carolina and practically all of the vegetable produce enters interstate trade channels. Certification procedures involve inspection of commodities as to freedom from plant pests. It is essential that accurate identifications and diagnosis be performed in an expedient manner and that certification treatments to meet plant pest quarantine requirements be performed when and where needed. Certification as to freedom from plant pests is essential for commodities to be allowed entry into other states.

The division would have a permanent field location in this area which would serve as a contact point for all citizens who require services from the division. This would mean that the other two subprograms in the division, Pesticides and Structural Pest, could utilize this facility.

The field facility would have the space where a field laboratory could be developed. This laboratory would serve as a vital component in the certification and diagnosis of problems associated with the plant industry which is centered in the northwestern mountain counties. This facility would also serve as a storage site for division equipment when not in use.

Another important function of this facility would be its use for certification treatments for nursery stock and other regulated commodities which require treatments for plant pests before they can move in interstate commerce. Permanent treatment structures could be set up which would speed up treatments during peak periods of movement.



It will be difficult to measure the monetary benefits of establishing a Plant and Biological Mountain Field Facility; however, such a facility would greatly increase the accessibility of the division to the people in this area. Presently the limited facilities used by the division are rented. If the department purchased land and developed this facility over a long range period, the costs for this facility should be less than those incurred in renting space which does not completely meet the needs of the division. Presented here are some statistical indicators which reflect some of the trends in the nursery industry in that area.

Number of Certified Nurseries by County in  
Northwest Section of North Carolina

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Projected</u>	
				<u>1978</u>	<u>1979</u>
Alexander	2	3	5	6	7
Alleghany	4	5	4	10	15
Ashe	26	29	37	41	45
Avery	217	224	221	225	227
Burke	22	23	26	28	29
Caldwell	39	36	47	50	52
Catawba	22	20	20	20	22
Iredell	10	17	17	18	21
Mitchell	29	36	35	36	40
Watauga	54	53	58	60	67
Wilkes	13	14	15	16	18
Yancey	62	66	69	70	75
TOTALS:	500	526	554	580	618

Number of Plants Shipped from Nurseries  
in Northwest Section of North Carolina

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Projected</u>	
				<u>1978</u>	<u>1979</u>
	428,199	444,413	422,478	435,152	448,207

In 1975 there was a decrease in number of plants shipped. This came as a result of a general recession in the national economy. Indications are that this was a temporary slump in the demand for plant material. All factors point to a steady growth within the industry during the next biennium.

4. Narrative:

Approximately one-third of the nurseries in North Carolina are located in the northwestern section of the State and with the inclusion of the rest of the mountain counties, over one-half of the nurseries are in this region. With the intensification of the industry in this region and with the major concentration being in the northwestern section, more problems can be expected to develop. The production of Christmas trees in this area is also expanding and there is a sizeable commercial vegetable industry which enters most of this produce in interstate commerce. It has been demonstrated in many states when horticultural industries are concentrated, new problems continue to crop up but by having the proper resources available at the key time these problems can be solved and these types of operations can continue to develop and progress. The presence of adequate Plant Protection and Biological Asset Certification and service facilities is an essential ingredient in the continued development and maintenance of agricultural industries in northwestern North Carolina.





5. Funding Requirements:

Agriculture (Code 28021)

Plant Protection and Biological Asset

Plant and Biological Mountain Field Facility

Priority 63 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3300 Utilities	-	\$ 350	\$ 350
3300 Utilities Installation	-	1,800	1,800
3510 Repairs & Maintenance to Buildings -- (Access and Site Preparation)	-	1,000	1,000
5400 Motor Vehicles (Purchase of Trailer)	-	6,000	6,000
5720 Land Acquisition	-	<u>5,500</u>	<u>5,500</u>
Totals		\$ 14,650	\$ 14,650
Non-recurring		\$ 14,300	



## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 71 of 87

Name of Proposed change: Increased Protection for the Bee and Honey Industry1. Objective:

The objective of this change is to protect the bee and honey industry from a new bee disease (chalk brood; Ascoscaphaera aphid) which is threatening to enter our state; to provide more adequate disease surveillance of honey bees that are moving into our state from other states; to provide a method for sterilizing diseased beekeeping equipment without destroying the equipment; to provide an improved diagnostic service designed to further protect the honey bees of North Carolina from a widespread disease (Nosema apis) which is placing a strain on the beekeeping industry in North Carolina; to further assist the beekeepers in North Carolina in protecting and salvaging their bees from pesticide poisonings; to strengthen the honey bee queen breeding, pollination and commercial beekeeping programs in North Carolina; to develop regulations to prevent early long distance introduction of the Brazilian or killer bee into North Carolina; and to meet the increased demand for bee inspection services from the growing number of new beekeepers in the State.

2. Strategies:

Additional apiary inspection resources will be utilized to reach the objectives in the following manner: An intensive survey and eradication program will be conducted in areas where the new bee disease (chalk brood) is suspected. The honey bees of commercial beekeepers coming into North Carolina will be closely monitored for this disease. A fumigation service to sterilize diseased beekeeping equipment will be developed and made available to beekeepers in lieu of destruction of equipment. Inspectors will increase their inspection and diagnosis of nosema disease; a disease which is weakening beekeeping over all of North Carolina. Registration and assistance will be given to beekeepers wishing to protect their honey bees from aerial application of pesticides under the regulations of the North Carolina Pesticide Board. Inspectors will more closely police and provide disease protection in critical bee movement areas such as pollination areas, queen bee rearing areas, and commercial beekeeping areas where additional protection from bee disease is required. Regulations will be promulgated to prevent the deliberate introduction of and eradication of any importations of the Brazilian or killer bee. Inspectors will work with and assist the rapidly increasing number of new beekeepers in North Carolina with their problems. Temporary laboratory help will be employed to diagnose diseases in samples sent to the laboratory in the intensive nosema disease survey.



3. Measures:

	<u>1977-78</u>	<u>1978-79</u>
Number of Colonies Inspected for Chalk brood Disease	5,000	5,000
Number of Colonies Inspected and Diagnosed for Nosema Disease	5,000	5,000
Number of Colonies Inspected in Interstate Movement	3,000	3,000
Number of Bee Equipment Units Sterilized	200	1,000
Number Acres Under Bee Disease Clean-up or Quarantine	6,400	6,400
Number of Samples Diagnosed in Laboratory for Bee Diseases	2,000	2,000

4. Narrative:

The bee and honey industry is growing in North Carolina with a greatly increased number of hobby beekeepers and an increase in commercial beekeepers. North Carolina rates fourth in the nation in the number of honey bee colonies. These bees are mostly owned and operated by hobby or sideline beekeepers who need assistance with their bee disease or poison problems. There has been an increase in the interstate movement of bees into and from North Carolina with an equal increased risk of bringing bee diseases into North Carolina. Chalk brood disease was brought into North Carolina for the first time in 1976 from another state. We owe it to our state to wipe out and prevent the introduction of this disease into North Carolina.

There is a need for a more randomized survey for American foulbrood and other highly contagious bee diseases. We need to place more emphasis on ensuring that bees brought into our pollinating, commercial beekeeping, and queen rearing areas are disease free. A new method for sterilizing diseased bee equipment by fumigation has been developed. Our beekeepers should have access to this new control method. The only other means of sterilization is destruction of a large part of the equipment. This new methodology can save North Carolina beekeepers thousands of dollars.

The North Carolina Pesticide Board is developing pesticide aerial application regulations designed to help protect honey bees from pesticides. We need to develop a beekeeper registration for this program. There is also a need to provide more assistance to beekeepers who have suffered pesticide damage and to increase

our efforts to see that all pesticides hazardous to bees are properly registered.

The honey bee is becoming increasingly important as the only remaining effective pollinator of our agricultural and horticultural crops and many of our native plants which must have insect pollination in order to produce seed. It is vitally important that the honey bee industry be protected and improved in North Carolina.





5. Funding Requirements:

Agriculture (Code: 28021)

Plant Pest and Biological Asset Subprogram

Increased Protection for the Bee and Honey Industry

Priority 71 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 11,912	\$ 11,912	\$ 23,824
(1) Apiary Inspector @ \$8736			
(2) Change Present Apiary Inspectors from 10 month year to 12 month year (4 additional months) \$3176			
1260 Temporary Salaries & Wages	1,200	1,200	2,400
1810 Social Security	780	793	1,573
1820 Retirement	1,086	1,086	2,172
1830 Hospitalization Insurance	356	356	712
2313 Agricultural Chemicals	500	500	1,000
2320 Laboratory Supplies	100	100	200
2600 Office Supplies & Materials	100	100	200
2990 Other Supplies & Materials	250	250	500
3100 Travel	4,600	4,600	9,200
3210 Telephone Service	250	250	500
4500 Insurance and Bonding	34	102	136
5400 Purchase of Motor Vehicles	5,150	10,000	15,150
5500 Other Equipment	<u>-</u>	<u>7,000</u>	<u>7,000</u>
Total	\$ 26,318	\$ 38,249	\$ 64,567
Non-recurring	\$ 5,150	\$ 17,000	



## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 80 of 87

Name of Proposed change: Noxious Weed Program1. Objectives:

To protect the environment of North Carolina from the introduction of noxious weeds from other states and foreign countries. To establish provisions which will allow the eradication of certain noxious weeds if and when introduced, to control or suppress established noxious weeds and to enter into cooperative programs to further this objective.

2. Strategies:

Prepare and have presented for consideration to the North Carolina General Assembly a State Noxious Weed Bill. This bill would contain authority to regulate the entry into the State of weeds and articles capable of carrying weeds and weed seed, intrastate authority to limit movement of regulated commodities, quarantine authority, entry and access authority and authority to engage in action programs for destruction of weed pests.

Systematic surveys will be necessary to detect and delimit areas of weed populations. Entry of materials from foreign countries will need surveillance for the presence of weeds and weed seeds. Department personnel will need training in weed identification and detection procedures.

A procedure will need to be established whereby certain weeds can be designated as undesirable and be denied access to the State. Other weeds will probably only be admitted under specified conditions.

When introductions of noxious weeds occur, take such measures as necessary to suppress or eradicate these introductions. When it is in the public interest to undertake control actions against weeds already established in the State, provide the mechanism which will allow these actions. Develop within the program provisions which will allow cooperative control efforts with private citizens and other agencies.

Hire staff personnel to develop the program with responsibility for training present field personnel and coordinating activities on a state-wide basis. Procure the necessary equipment and supplies to enable the action portion of the program to be carried out.



### 3. Measures:

It will be difficult to make a monetary evaluation of the usefulness of this program because it is difficult to assess the impact of a particular weed species in a new environment. Some comparisons, however, can be drawn. During the late 1950's and early 1960's in spots in several eastern North Carolina counties, witchweed, a parasitic weed introduced in some fields uneconomical. This weed had it been allowed to spread could have practically eliminated corn production in the western hemisphere. In the present production of agronomic crops, weed control measures are necessary to successfully produce a crop. Additional weed introductions would contribute to farm commodity production costs and could have the potential to severely restrict or eliminate the production of certain crops currently a part of our agrarian system.

### 4. Narrative:

Weeds have long been considered serious plant pests. With the development of new technology, primarily within the last ten years, we now have many tools which can be used to control, suppress or eliminate many weeds in certain situations. For maximization of yield potential our agricultural system has become dependent on weed control.

With the passage of the Federal Noxious Weed Law by the Congress of the United States in 1974, we for the first time have the mechanism at a national level to prevent introduction of potential weed pests. It is essential at this time that parallel state legislation be passed to fully extend protection to the citizens of our state. Many other states already have various types of noxious weed legislation. As more states develop weed laws it will be necessary that our state have certain standards to enable North Carolina commodities to move in national commerce.

5. Funding Requirements:

Agriculture (Code: 28021)

Plant Protection and Biological Asset

Noxious Weed Program

Priority 80 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (1) Staff Weed Specialist @ \$15,624	\$ 15,624	\$ 15,624	\$ 31,248
1260 Salaries & Wages - Temporary	3,000	3,000	6,000
1810 Social Security	1,108	1,127	2,235
1820 Retirement	1,425	1,425	2,850
1830 Hospitalization Insurance	267	267	534
2313 Agriculture Chemicals	5,000	5,000	10,000
2320 Laboratory Supplies	1,000	1,000	2,000
2500 Motor Vehicle Operation	6,600	11,000	17,600
2600 Office Supplies & Materials	250	250	500
2900 Other Materials & Supplies	150	150	300
3100 Travel	3,000	3,000	6,000
3210 Telephone Service	200	200	400
3250 Postage	175	175	350
4500 Insurance & Bonding	102	170	272
4901 Subscriptions & Dues	100	100	200
5100 Office Furniture & Equipment	450	-	450
5300 Agricultural Equipment	32,000	-	32,000
5303 Laboratory Equipment	750	-	750
5400 Purchase of Motor Vehicles	<u>15,400</u>	<u>10,266</u>	<u>25,666</u>
Total	\$ 86,601	\$ 52,754	\$139,355
Non-recurring	\$ 48,150	\$ 10,266	





## Agriculture

## Plant Protection and Biological Asset Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 86 of 87

Name of Proposed change: Addition to Headhouse - Greenhouse1. Objectives:

To obtain an addition to the Headhouse-Greenhouse facility located on Agriculture property located at Blue Ridge and Reedy Creek Roads in the form of a metal building extension to existing headhouse facility. This facility would provide much needed storage space for supplies and Agricultural equipment of the Pest Control Division as well as overflow storage for supplies, materials and equipment needed in the operation of the greenhouse.

2. Strategies:

To plan for, submit for bids and have constructed the storage facility discussed in the objectives.

3. Measures:

Not applicable

4. Narrative:

With the recent consolidation and reorganization by which the Pest Control Division was formed, the need for a central storage facility has become very apparent. At the present time supplies and equipment are being stored in several rooms in the Agriculture Building, a barn at Dorothea Dix Hospital, the Textbooks warehouse and several other facilities. The storage rooms in the Agriculture building must soon be vacated as they are needed as offices and the outlying storage locations are accessible by other than Pest Control Division personnel and several instances of minor theft have been observed. These storage facilities are also not readily accessible at all times. To provide for the security, as well as the accessibility of these supplies and materials, this storage space is badly needed.



CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

Plant Protection Subprogram

Request: Addition to Headhouse - Greenhouse

Priority 86 of 87

Description

1. This request entails the construction of an 800 sq. ft. addition to the metal headhouse facility. The addition will provide storage space for supplies and Agricultural equipment for the Pest Control Division and for the cooperative greenhouse.
2. This addition will be to the metal headhouse facility now located on Department of Agriculture property at Blue Ridge and Reedy Creek roads in Raleigh.
3. Activities:
  - Storage
4. Estimated space required for activities:
  - Storage-800 square feet in one room
5. No unusual construction requirements
6. This storage space is needed so the Pest Control Division can consolidate its equipment and supplies into one location with the security this will provide.
7. None available
8. N/A
9. N/A

Justification

1. With the recent consolidation and reorganization by which the Pest Control Division was formed, the need for a central storage facility has become very apparent. At the present time supplies and equipment are being stored in several rooms in the Agriculture Building, a barn at Dorothea Dix Hospital, the Textbooks warehouse and several other facilities. The storage rooms in the Agriculture building must soon be vacated as they are needed as offices and the outlying storage locations are accessible by other than Pest Control Division personnel and several instances of minor theft have been observed. These storage facilities are also not readily accessible at all times. To provide for the security, as well as the accessibility of these supplies and materials, this storage space is badly needed.



Cost/Financing

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	0	0	0	0
Site Development	0	0	0	0
Utilities	0	0	0	0
Construction	\$11,500.	0	0	0
Fixed Equipment	500.	0	0	0
Movable Equipment	0	0	0	0
Total	\$12,000.	0	0	0

## 2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff	0	0	0	0
Utilities	0	\$100.	\$100.	\$100.
Maintenance	0	200.	200.	200.
Other	-	-	-	-

## 3. Source of funds: General Fund

## Structural Pest Services Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 82 of 87

Name of Proposed change: Structural pest subprogram improvements

1. Objective: To provide additional structural pest services to densely populated and highly industrialized areas of the state which are not presently being adequately served.
2. Strategies: During the last half of the 1977-79 biennium, the Structural Pest Subprogram will utilize additional resources to handle work load generated by industry growth in the West Central District. A concentrated effort will be made to handle all requests for inspections, consultative assistance, and technical advice.

In order to accomplish desired objectives, the following strategies will be employed:

- a. Hire an additional pest control inspector to handle work load resulting from industry growth. Inspector will make routine inspections of operator's chemicals, records, equipment, and work. In addition, inspector will conduct investigations of consumer complaints.
  - b. Purchase supplies and equipment for increased work load.
  - c. Purchase motor vehicle for inspector.
3. Measures:

There are no criteria to effectively measure and determine the monetary value of this subprogram. However, the results of inspections during the next biennium will be utilized in an effort to make an assessment of the program's effectiveness and usefulness.

The Structural Pest Subprogram will continue to cross-utilize all available resources of the Plant Protection and Biological Asset and Pesticide Subprogram in order to achieve and maintain maximum operational efficiency. However, continuous concentration of industry in the densely populated areas, particularly in the Piedmont, will necessitate a realignment of current Pest Control Districts and the establishment of a new work area in order to equalize the workload within all such areas and provide more adequate consumer coverage.

Actual and projected data, shown below, reflect a substantial increase in the workload throughout the entire state.



Number of wood-destroying insect jobs inspected	225	280
Percent of jobs with major discrepancies	17%	16%
Percent of jobs with major and minor discrepancies	30%	30%
Number soil samples tested	300	425
Percent of samples deficient	7%	7%
Number consumer requests examined	50	80
Number persons convicted of violating law	0	1
Number licenses suspended or revoked	0	0
Number fogging operations checked	10	15
Percent of operations not in compliance	25%	30%
Number of household pest jobs checked	15	25
Percent of jobs not in compliance	25%	30%
Number wood-decay fungi jobs inspected	20	30
Percent of jobs substandard	15%	20%

#### 4. Narrative:

Due to a lack of equipment and inadequate knowledge of structural pest control procedures, the homeowner must seek the services of the pest control operator. Strong consumer oriented programs provide invaluable data which enable the homeowner to select the most economical and effective services.

In order to meet consumer demands and remain competitive in a free business enterprise system, the pest control operator must increase and maintain his ethical and professional standards. The operator must take advantage of technological developments and training programs which will enhance his ability to select and apply remedial service measures that result in minimal environmental contamination.

The additional inspector will perform regulatory duties in all areas of wood-destroying organism and household pest control work. Data obtained by the inspector will be used as criteria in ascertaining and measuring the work quality of industry. As a result of the inspector's work, unqualified structural pest operators will be forced to improve their work or go out of business, and the professional status of operators who perform high quality work will be strengthened, thus benefiting the consumer.



5. Funding Requirements:

Agriculture (Code: 28021)

Structural Pest Services Subprogram

Structural Pest Subprogram Improvements      Priority 82 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	-	\$10,872	\$10,872
(1) Pest Control Inspector @ \$10,872			
1810 Social Security	-	658	658
1820 Retirement	-	992	992
1830 Hospitalization Insurance	-	267	267
2500 Motor Vehicle Operation	-	2,200	2,200
2600 Office Supplies & Materials	-	200	200
2990 Other Materials & Supplies	-	300	300
3100 Travel	-	2,200	2,200
3210 Telephone Service	-	150	150
3250 Postage	-	175	175
5500 Other Equipment	-	300	300
4500 Insurance & Bonding	-	34	34
5400 Purchase of Motor Vehicles	<u>-</u>	<u>3,635</u>	<u>3,635</u>
Total	-	\$21,983	\$21,983
Non-recurring	-	\$ 3,635	-



## Pesticide Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Change

Department Priority 27 of 87

Name of Proposed Change: Pesticide emergency and toxicological review

1. Objectives:

To provide:

- a. immediate on site advice in order to minimize human and environmental hazards resulting from fire, flood, transportation or other emergency incidents involving pesticides.
- b. adequate protective equipment and clothing for emergency pesticide team.
- c. adequate toxicological review of present and proposed changes in pesticide use, exposure, labeling, policies and regulations.

2. Strategies:

This program will involve the hiring of a toxicologist for the purpose of providing the expertise to accomplish the objectives set forth in a. and c.

In addition, it will be necessary to purchase three(3) sets of self-contained breathing equipment and protective clothing (one each for our western, central, and eastern regional offices and communication equipment for emergency team.)

3. Measures:

At the present time the Pesticide Subprogram does not have a trained toxicologist on the staff to review toxicological data, directions for use, antidote statements, etc. This individual would provide our pesticide registration system with the ability to adequately review such information regarding the 6,500 plus pesticide labels registered annually.

A measure of the value of this program as related to emergencies or human illnesses is difficult. However, the evaluation of pesticide exposure to man or the environment in order to prevent incidents similar to the Kepone contamination in Hopewell, Virginia, should in itself be adequate justification.

The study and evaluation of uses of those products involved in the 100 pesticide cases requiring hospital treatment hopefully will also result in altered use patterns or protective measures to protect the applicator.



In effect, this program will be beneficial to all urban homeowners, gardeners, farmers; i.e., essentially the whole population of N. C., most of which use or are subject to pesticide exposure.

4. Narrative:

As a result of a fire involving large quantities of pesticides in Farmville, N. C., and other less serious incidents, the Governor-appointed Pesticide Board established an Emergency Pesticide Reaction Team. In that the Department of Agriculture is responsible for administering the Law and Regulations established by the Board, we are responsible for seeking funds to carry out their programs. The Team is composed of individuals from the Dept. of Human Resources, Natural and Economic Resources, and the Dept. of Agriculture. The system for responding to emergencies is well established; however, proper protective clothing and breathing apparatus must be available to protect one or more of these individuals who is subject to excessive exposures to pesticides.

As proposed in the strategy section, a toxicologist would also complement the expertise available from other departments of State Government. This individual would also be a credit to the Department through his input into practices, policies, or regulations involving the state or federal government regarding pesticides. His review of pesticide labels and subsequent determinations of proper provisions relating to health hazard antidotes and/or first aid measures.

5. Funding Requirements:

Agriculture (Code 28021)

Pesticide Subprogram

Pesticide Emergency and Toxicological Review      Priority 27 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$15,624	\$15,624	\$31,248
(1) Toxicologist @ \$15,624			
1810 Social Security	930	945	1,875
1820 Retirement	1,425	1,425	2,850
1830 Hospitalization Insurance	267	267	534
2600 Office Supplies & Materials	1,100	1,100	2,200
2990 Other Materials & Supplies	400	300	700
3100 Travel	1,500	1,500	3,000
3210 Telephone Service	500	500	1,000
3250 Postage	100	100	200
4901 Subscriptions and Dues	500	500	1,000
4903 General Expense	300	300	600
5100 Office Furniture & Equipment	1,000	1,000	2,000
5500 Other Equipment	4,616	-	4,616
5600 Books	<u>200</u>	<u>200</u>	<u>400</u>
Total	\$28,462	\$23,761	\$52,223
Non-recurring	\$ 3,500	\$ 500	-





## Pesticide Subprogram

## III. PLANS FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 28 of 87

Names of Proposed Change: Private Applicator Certification

1. Objectives:

To provide for certification (licensing) of private applicators (farmers using highly toxic or persistent pesticides) as required by the Federal Environmental Pesticide Control Act of 1971 and as provided for by the N. C. Pesticide Law of 1971, in order that our farmers will be allowed to continue use of those pesticides necessary to produce adequate food and fiber.

2. Strategies:

North Carolina State University is responsible and is being federally funded to provide training for private applicators which will qualify them for certification (licensing.) Such training is currently being conducted on a limited scale.

The Dept. of Agriculture is responsible for certification of those private applicators determined competent to use the highly toxic or persistent pesticides (restricted-use pesticides) prior to October 21, 1977.

To accomplish this program the following strategies will be employed:

- a. Continue to insist that the federally required program be funded entirely by federal funds.
- b. In order to maintain the certification program due to changing technology, new pesticides being introduced, and new individuals needing to be certified, we propose that one(1) Administrative Officer I, two(2) Steno-Clerk III's, one(1) Computer Key punch Operator, and two(2) Pest Control Inspectors be hired plus appropriation of other line items shown under Funding Requirements.

3. Measures:

Only those individuals who we determine competent to use restricted-use pesticides will be legally authorized to purchase and use such products.

Several options for certification will be available including attendance and active participation in classroom training, home study course, written examination, etc. Competency in the following areas will be demonstrated:

## Pests

- Insects
- Mites, Ticks, and Spiders
- Snails and Slugs
- Pest Animals
- Weeds
- Plant Diseases

## Pest Control

## Pesticides

- How Pesticides Work
- Using Pesticides
- Types of Formulations

## Labels and Labeling

## Using Pesticides Safely

- How Pesticides Harm Man
  - Symptoms of Pesticide Poisoning
  - First Aid Procedures
  - Protecting Your Body
- How Pesticides Harm the Environment
- Safe Use Precautions

## Application Equipment

- Sprayers
- Dusters and Granular Applicators
- Calibration

## Laws and Regulations

- North Carolina Pesticide Law of 1971
- Federal Insecticide, Fungicide, and Rodenticide Act
- Residues

4. Narrative:

There have been several attempts to have the private applicator certification provision in the federal law repealed or revised; however, it appears that Congress and most of the states are in favor of the requirement. Therefore, there is little doubt that if farmers wish to continue the use of restricted-use pesticides they must be certified. There is no doubt that those products that will be restricted are necessary in the production of adequate food and fiber.

It appears likely that the Environmental Protection Agency will fund the initial certification program. However, the General Accounting Office is firmly saying that subsequent certification of farmers will be the responsibility of the States.

In addition, all plans for certification approved by EPA have had a provision incorporated that requires recertification or an upgrade

in farmer competency standards in regard to changing technology, new pesticide introductions, new application techniques with some period of time which will likely not exceed four to five years. We plan to upgrade user's knowledge in these areas through publications, brochures, etc., mailed to each licensee with limited personal contact.





5. Funding Requirements:

Agriculture (Code: 28021)

Pesticide Subprogram

Private Applicators Certification

Priority 28 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$54,168	\$54,168	\$108,336
(1) Administrative Officer I @ \$11,364 (2) Clerk-Steno III @ \$7,020 (1) Key punch Operator @ \$7,020 (2) Pest Control Inspectors @ \$10,872			
1810 Social Security	3,223	3,277	6,500
1820 Retirement	4,940	4,940	9,880
1830 Hospitalization Insurance	1,602	1,602	3,204
2500 Motor Vehicle Operation	4,400	4,400	8,800
2600 Office Supplies & Materials	9,700	6,000	15,700
3100 Travel	3,000	3,000	6,000
3210 Telephone	900	900	1,800
3250 Postage (2 mailings per year - 80,000 applicators)	21,000	21,000	42,000
3600 Freight, Express Delivery	100	100	200
3800 Data Processing Services	6,000	6,000	12,000
3950 Employee Education Expense	480	480	960
4200 Rental of Data Processing Equipment	2,022	2,022	4,044
4500 Insurance and Bonding	68	68	136
4901 Subscription and Dues	200	200	400
4903 General Expense	125	125	250
4905 Purchases for Analyses	300	300	600
5100 Office Furniture & Equipment	3,726	-	3,726
5400 Purchase of Motor Vehicles	7,400	-	7,400
5600 Books	200	200	400
Total	\$123,554	\$108,782	\$232,336
Non-recurring	\$11,126	-	-





## Pesticide Subprogram

## III. PLANS FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 67 of 87

Name of Proposed Change: Supplemental Laboratory Equipment

1. Objectives:

To provide for more accuracy, specificity, and expanded capabilities in the analysis of pesticides marketed and used in N. C.

2. Strategies:

This program will allow the Pesticide Laboratory to purchase advanced analytical equipment, equipment designed to analytically determine active ingredients in recently introduced pesticides or combinations not presently analyzed, and equipment needed to speed up laboratory outputs.

3. Measures:

In that the purpose of the Pesticide Laboratory is to determine discrepancies in percentages of active pesticide ingredients for the guarantee, adulteration, and provide analytical support for investigations involving misuse of pesticides, etc., the entire population of N. C. benefits.

The main value of this program, however, is that the Laboratory will be able to analyze certain active pesticide ingredients or combinations, those of which in the past could not adequately be handled.

4. Narrative:

As new methods of analysis are developed for analyzing old and new pesticides or combinations thereof, new equipment is manufactured to meet these demands.

In addition, features of some equipment, such as the Mettler Balance, are needed to increase weighing speed in the Laboratory and reduce weighing errors.

Some of this equipment is necessary to meet the demand for analyzing more samples of certain formulations in that sampling of such formulations has increased due to increased use by the consumer.

More equipment such as electronic calculators is requested in that due to the use of more instrumentative analyses, increased calculations are necessary for which currently available equipment is inadequate.



5. Funding Requirements:

Agriculture (Code: 28021 )

Pesticide Subprogram

Supplemental Laboratory Equipment

Priority 67 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5303 Laboratory Equipment	\$30,025	\$ 7,885	\$37,910
Non-recurring	\$30,025	\$ 7,885	





Agriculture

Animal Health Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 9 of 87

Name of Proposed change: Communication System for Key Personnel of Animal Health Division

1. Objective: To establish a communication system for key personnel of the division so that service to the public can be improved.
2. Strategy: Establish a communication system for the veterinary medical officers and other key personnel of the division. Existing channels of the state microwave system would be utilized. A base station would be established at the Agriculture Building in Raleigh and a mobile unit installed in each car or laboratory designated.
3. Measures: It would be difficult to measure the effect of a good communication system on the program since there is no basis for comparison. However, the increased rapidity of service would result in reduced losses from animal diseases and fewer complaints and less travel.
4. Narrative: For the purpose of animal disease control, the state is divided into 14 sections. Each section is assigned to a Veterinary Medical Officer who is responsible for handling animal disease problems within his section. One or more livestock inspectors per section are assigned to assist each Veterinary Medical Officer. Eight of the veterinarians are employed by the State. The other six are federal employees. Twenty livestock inspectors are State employed. Eight other livestock inspectors are federal employees. All work on the Cooperative State-Federal Animal Disease Control and Eradication programs.

In animal disease control work it is important to prevent delay in initiating corrective measures. Increased time in responding usually results in greater losses to owners of sick animals and often allows the spread of the disease to other premises. Good communication with our personnel will enable us to handle disease outbreaks with less delay.

Needless travel could be prevented by the use of an effective communication system. It is not unusual for an employee to drive a long distance to accomplish a task which could have been taken care of the day before if we had been able to reach him when he was in the area on other State business.

While not related directly to our work, the ability of an employee to promptly report emergency situations to the proper authorities would be of some benefit to the public.



5. Funding Requirements:

Agriculture (Code: 28021)

Animal Health Subprogram

Communication System - Priority 9 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3990 Equipment	\$ 50,000	-	\$ 50,000
3520 Repairs and Alterations	<u>1,200</u>	<u>1,200</u>	<u>2,400</u>
Total	\$ 51,200	\$ 1,200	\$ 52,400
Non-recurring	50,000	-	-



## Agriculture

## Animal Health Services Subprogram

III. PLAN FOR THE BIENNIUM  
Part B. Program Changes

Department Priority 31 &amp; 73 of 87

Name of Proposed change: Animal Disease Control Improvement

1. Objective: To provide for anticipated increased demand for animal disease diagnostic services as well as to provide for continuation of recent increased services now done on a temporary basis.
2. Strategies: This program will utilize the additional resources to handle the increase in specimens for disease diagnosis. All requests for service must be accepted, and carried out to a satisfactory conclusion. To accomplish these goals the following strategies will be employed:
  - a. Construct an addition of 12,000 sq. ft. to the Rollins Animal Disease Diagnostic Laboratory to provide permanent space for operations now carried out in temporary quarters as well as to provide space to handle anticipated increase in work load.
  - b. Purchase equipment necessary to utilize this added space in handling work load.
  - c. Purchase laboratory and office supplies necessary to handle work load.
  - d. Employ one laboratory helper to assist in maintaining the new space and one clerk to assist in shipping, receiving, and maintaining stock in an orderly manner.
3. Measures: It is difficult to measure the total effectiveness of the laboratories mathematically. Total accessions continue to increase; however, an accession may be several animals requiring many hours for several workers and numerous laboratory tests, or it may be a single serum sample requiring only a few minutes of a technician's time. It will be noted below that the number of necropsies of cows and horses is increasing. This indicates a substantial increase in work load. There have also been increases in the more time consuming procedures in virology, chemistry, and serology.



	<u>1977-78</u>	<u>1978-79</u>
Serological testing		
Serum neutralization	1,000	1,000
Brucellosis	37,000	37,000
Anaplasmosis	2,500	2,500
Equine infectious anemia	3,000	3,000
Bacteriological examinations	2,000	2,000
Chemical examinations	300	400
Histopathological examinations	2,000	2,000
Post mortem examinations		
Cattle	50	100
Horses	25	50
Dogs	50	50
Field investigations of disease outbreaks & law violations	500	500
Cattle bled for brucellosis test	1,500	1,500

In addition to routine diagnostic work, the laboratories must have the flexibility to respond in the event a foreign animal disease is introduced. An adequate response to the situation would be invaluable and could very well result in erradicating a disease rather than allowing it to become permanently established in this country.

4. Narrative: The total work load of the laboratories has steadily increased and is expected to continue to increase. In order to offer services at the present level, several areas of temporary space are being utilized (2 trailers, 2 plywood out buildings) and several areas in the Rollins Animal Disease Diagnostic Laboratory building are temporarily overcrowded and used for purposes other than their original purpose. For example, the poultry necropsy room and one animal room are being used as shipping and receiving rooms and another is being used for storage. The proposed addition would replace the present temporary areas (trailers and out buildings) and would also allow for some future expansion





5. Funding Requirements:

Agriculture (Code: 28021)

Animal Health Subprogram

Animal Disease Control Improvement      Priority 31 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$12,492	\$12,492	\$24,984
(1) Laboratory Helper @ \$5,472			
(1) Clerk III @ \$7,020			
1810 Social Security Contribution	743	756	1,499
1820 Retirement Contribution	1,139	1,139	2,278
1830 Hospitalization Insurance	534	534	1,068
2320 Laboratory Supplies	-	10,000	10,000
2600 Office Supplies and Materials	-	500	500
3210 Telephone Service	-	1,200	1,200
3300 Utilities	-	20,000	20,000
5100 Office Furniture and Equipment	-	1,800	1,800
5303 Laboratory Equipment	<u>-</u>	<u>8,000</u>	<u>8,000</u>
Total	\$14,908	\$56,421	\$71,329
Non-recurring	-	\$ 9,800	-



## CAPITAL IMPROVEMENT REQUEST

Agriculture

Animal Health Subprogram

Request: Addition to Rollins Animal Disease Diagnostic Laboratory

Priority 73 of 87

Description-

1. This request is for the construction of a 12,000 sq. ft. addition to the Rollins Animal Disease Diagnostic Laboratory building and will include space for offices, shipping and receiving area, chemistry laboratory, virology laboratory, conference room, storage and animal rooms. This addition will be used to relieve overcrowding of existing facilities, provide permanent space for presently used temporary space and provide for modest expansion in the future.
2. The addition would be to the west side of the existing Rollins Animal Disease Diagnostic Laboratory, 2101 Blue Ridge Road, Raleigh, N. C.
3. Activities:
  1. Virus studies
  2. Toxicological examinations
  3. Receiving specimens and shipping supplies
  4. Offices - administrative - records
  5. Meetings, lectures, training sessions
  6. Housing laboratory animals
  7. Storage

4. Estimated space required:

Four offices	840 sq. ft.
Receiving and shipping	500 sq. ft.
Chemistry	500 sq. ft.
Virology	1,320 sq. ft.
Storage	3,000 sq. ft.



Conference	2,000 sq. ft.
Animal rooms	840 sq. ft.
Freezer room	400 sq. ft.
Mechanical room	600 sq. ft.
Rest rooms	200 sq. ft.
Circulation	<u>1,800 sq. ft.</u>
Total space	12,000 sq. ft.

5. This addition is to be heated and air conditioned. Construction should be the equivalent of present structure -- concrete block and brick -- precast double T's for floor and roof. Dry wall for non load bearing partitions.
6. The building occupied by the Rollins Animal Disease Diagnostic Laboratory was completed in 1972. The size of the building was limited by funds appropriated and no provision was made for the future expansion. Since that time new procedures have been added and work loads have increased. This has been possible because of the acquisition of temporary space in trailers and plywood out buildings. These temporary structures are limited in duration of usefulness and are unsightly. When the analytical building is completed these structures should be removed to provide needed parking space and to enhance the esthetic quality of the Blue Ridge Road Center.
7. Presently the laboratory is housed in a building consisting of approximately 13,000 sq. ft. which was designed for the purpose. The proposed structure would be an addition to the building.
8. The building now occupied will continue to be used for its original purpose. The proposed addition will alleviate overcrowded conditions.
9. None

#### Justification

1. The space requested is an estimate of the minimum space needed to achieve the objective. The estimate was made after consulting with workers in each area involved and is based on experience under existing conditions.
2. This project will allow for anticipated increases in demand for services as outlined in "Measures" under Plan for the Biennium.
3. The project will provide for continuation of services presently carried out in temporary structures as outlined in "Measures" under Plan for the Biennium. When these structures are no longer usable, it will be necessary to discontinue services or find other temporary facilities. In order

to add any new project or procedure, an existing one must be discontinued. If a foreign animal disease were to be introduced the laboratory would be required to process large volumes of specimens on an emergency basis. Under present conditions, existing programs such as hog cholera surveillance, would have to be discontinued.

4. Because of the type construction it is expensive to heat and air condition trailers. Propane gas is used for heat and laboratory burners. The high price of the fuel plus the inefficient use of it is wasteful. A permanent building can be expected to last for a longer period of time than these temporary structures which will need to be replaced -- probably within five years

#### Cost/Financing

##### 1. Cost of Components:

	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>
Land acquisition	None			
Site development, access & parking	\$ 15,000	\$	\$	\$
Utilities				
Construction	750,000			
Fixed equipment		9,000		
Moveable equipment				
Landscaping		<u>5,000</u>		
Total	\$ 765,000	\$14,000	-	-

##### 2. Operating costs:

	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>
Staff, additional	\$ 11,424	\$ 11,424	\$ 11,424
Utilities	20,000	20,000	20,000
Maintenance	2,000	2,000	2,000
Other			

##### 3. Source of funds: General Fund





## Agriculture

## Animal Health Subprogram

III. PLAN FOR THE BIENNIUM  
Part B. Program Changes

Department Priority 69 of 87

Name of Proposed change: Improved Laboratory Equipment1. Objective:

To provide complete animal disease diagnostic service for animal owners. This service includes individual problems as well as disease control and eradication programs. Diseases of food animals are of primary importance; however, diseases of companion animals are not excluded.

2. Strategies:

The following strategies will be used to accomplish these objectives:

- a. The laboratories will continue to accept animals for post mortem examination and disease diagnosis; specimens from practicing veterinarians for specific laboratory procedures; and specimens associated with disease control and eradication programs.
- b. A continuous program of review and updating of procedures and techniques will be carried out in order to take advantage of new information provided by researchers and other workers in the field of animal medicine.
- c. Purchase necessary items of new equipment to continue and improve level of animal disease diagnostic service.

3. Measures:

It is difficult to measure the total effectiveness of the laboratories mathematically. Total accessions continue to increase; however, an accession may be several animals requiring many hours for several workers and numerous laboratory tests, or it may be a single serum sample requiring only a few minutes of a technician's time. It will be noted below that the number of necropsies of cows and horses is increasing substantially. This indicates an increase in work load. There have also been increases in more time consuming procedures in virology, chemistry, and serology.

	1974-75	1975-76	1976-77	1977-78	1978-79
Serological testing					
Serum neutralization	5,285	6,000	7,000	7,000	7,000
Brucellosis	142,088	163,000	200,000	200,000	200,000
Pullorum-typhoid	568,303	600,000	600,000	600,000	600,000
Mycoplasmosis	648,543	600,000	600,000	600,000	600,000
Anaplasmosis	3,598	5,000	5,000	7,500	7,500
Leptospirosis	55,235	60,000	60,000	60,000	60,000
Equine infectious anemia	31,414	12,000	14,000	15,000	15,000
Other	131,675	140,000	140,000	140,000	140,000
Virological examinations	3,999	4,000	4,000	4,000	4,000
Bacteriological examinations	30,413	32,000	34,000	34,000	34,000
Parasitological examinations	13,707	14,000	14,000	14,000	14,000
Chemical examinations	1,928	2,200	2,400	2,500	2,600
Miscellaneous examinations	2,902	3,000	3,000	3,000	3,000
Histopathological examinations	23,632	24,000	26,000	26,000	26,000
Post mortem examinations:					
Swine	1,296	1,300	1,300	1,300	1,300
Cattle	779	800	800	850	900
Horses	134	200	200	225	250
Dogs	324	350	400	400	400
Chickens	15,119	16,000	16,000	16,000	16,000
Turkeys	4,373	6,000	6,000	6,000	6,000
Other	864	1,000	1,000	1,000	1,000
Field investigations of disease					
Outbreaks & law violations	4,214	4,500	4,700	5,000	5,000
*Livestock market inspections	3,633	4,000	4,000	4,000	4,000
Inspections of garbage					
feeding operations	5,947	7,000	7,000	7,000	7,000
Cattle bled for brucellosis test	17,431	18,500	20,000	20,000	20,000
Cattle tested for tuberculosis	2,705	3,000	3,000	3,000	3,000
Pit inspections (dead poultry disposal)	2,260	2,500	2,500	2,500	2,500
Hatchery inspections	79	150	150	150	150

\*Includes horse shows and fair inspections



#### 4. Narrative:

The acquisition of various items of equipment will enhance the services rendered by the laboratories by enabling workers to perform their duties more efficiently. An additional centrifuge and water bath will eliminate the necessity of waiting to start a second test until the first one is finished. Additional wire racks will enable workers to set up a new set of samples while the previous day's tests are being read, instead of waiting until the racks are emptied. The purchase of "Minitek" equipment will allow the use of a relatively new technique in bacteriology. This is an accurate, space and time saving, system which should be employed.

An additional automatic pipette and three laboratory carts are needed in the serology department to reduce "waiting time".

There is a need for telephone answering equipment at the Western Animal Disease Diagnostic Laboratory for the benefit of those who have problems when the laboratory is not open. This would allow them to contact the veterinarian on call much easier.

In the pathology department of the Rollins Animal Disease Diagnostic Laboratory there is a need for an automatic tissue staining machine to handle the large number of tissues processed. There is also a need for a pathological microscope with two compound heads so that the diagnostician can study tissues with the pathologist.

In order to have the capability of assaying for Vitamin E and selenium a spectrofluorometer is needed in the chemistry department.

No provision has been made for removing incinerator ash from the basement area at the Western Animal Disease Diagnostic Laboratory. An electric ash hoist is needed for this purpose.

A dissecting microscope is needed at the Western Animal Disease Diagnostic Laboratory for examining parasites. It can also be used for determining colonial morphology in the bacteriology department.

In order to use the space more efficiently, stainless steel shelves are needed in the serology walk-in cooler at the Western Animal Disease Diagnostic Laboratory.

An electric necropsy saw is needed at the Western Animal Disease Diagnostic Laboratory to remove tissues such as the spinal cord from boney areas.





5. Funding Requirements:

Agriculture (Code: 28021 )

Animal Health Subprogram

Improved Laboratory Equipment - Priority 69 of 87

5303 Laboratory Equipment	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
	\$10,650	\$8,250	\$18,900
Non-recurring	\$10,650	\$8,250	\$18,900





Agriculture

Animal Health Subprogram

### III. PLAN FOR THE BIENNium

#### Part B. Program Changes

Department Priority 77 of 87

Name of Proposed change: Security Improvements

1. Objective: To improve security for laboratory buildings.
2. Strategies: The following resources will be utilized to minimize the possibility of thieves or vandals entering laboratory buildings:
  - a. Improve existing alarm system at Rollins Animal Disease Diagnostic Laboratory.
  - b. Re-keying Rollins Animal Disease Diagnostic Laboratory. Outside doors have been re-keyed using "Best" system. The remaining doors should be re-keyed using the same system.
  - c. Provide alarm system for the Edenton laboratory.
  - d. Provide alarm system for the Western Animal Disease Diagnostic Laboratory.
3. Measures: The Edenton Laboratory has been entered three times in the past. The Western Animal Disease Diagnostic Laboratory is a new laboratory and todate has not been entered; however, it is in a semi-isolated area and is subject to the action of thieves and vandals.
4. Narrative: Diagnostic laboratories are equipped with sophisticated and expensive equipment and instruments, some of which could be dangerous to uniformed persons. For example, the microtome has a very sharp blade. Just touching this edge would result in a severe cut. With very little effort, a vandal could ruin a microscope costing \$9,000.

There are dangerous chemicals and drugs, and non tax paid alcohol as well as microbiological cultures which are capable of infecting humans.

There is no security system at either the Western Animal Disease Diagnostic Laboratory or the Edenton Laboratory. The system at the Rollins Animal Disease Diagnostic Laboratory is incomplete in that there are several areas not covered (windows, doors, overhead). Also a violation of the system results only in the sounding of a bell and an alarm. It should be programmed to alert a law enforcement agency.



5. Funding Requirements:

Agriculture (Code: 28021)

Animal Health Subprogram

Security Improvements - Priority 77 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3510 Repairs and Maintenance	\$ 8,500	-	\$ 8,500
	<hr/>	<hr/>	<hr/>
Total	\$ 8,500	-	\$ 8,500
Non-recurring	\$ 8,500	-	-





## Agriculture

## Animal Health Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 79 of 87

Name of Proposed Change: Improvement and Maintenance of Western Animal  
Disease Diagnostic Laboratory and Rollins  
Animal Disease Diagnostic Laboratory

1. Objective:

Building and Grounds Improvement

2. Strategies:

The following strategies will be used to accomplish the objectives of the Animal Health Services Subprogram:

- a. Install air conditioning in Western Animal Disease Diagnostic Laboratory.
- b. Curb and pave parking lot at Western Animal Disease Diagnostic Laboratory.
- c. Construct gates on loading dock for holding animals at Western Animal Disease Diagnostic Laboratory.
- d. Construct outside storage building at Western Animal Disease Diagnostic Laboratory.
- e. Paint interior of Rollins Animal Disease Diagnostic Laboratory.

3. Measures:4. Narrative:

Because of limited funds, the Western Animal Disease Diagnostic building was not air conditioned when it was built. This presents a problem since the building design (few outside windows in laboratory area) requires air conditioning. One of the economies effected in order to construct the building with limited funds was the use of a gravel parking lot instead of paving. This is, of course, not satisfactory as the gravel settles in low places which collect and hold water. It is necessary to make repairs continuously.

To facilitate handling of live large animals there is a need for a system of gates on the unloading dock. This would permit a live cow or horse to be unloaded and restrained properly without damage to property or injury to personnel.

There is a need for a small storage building for storing lawn tools and equipment and combustibles such as gasoline.

The Rollins Animal Disease Diagnostic Laboratory building was completed and occupied in 1972. After six years of normal use, there will be a need to repaint the interior walls.



5. Funding Requirements:

Agriculture (Code: 28021)

Animal Health Subprogram

Building and Grounds Improvement - Priority 79 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
5804 Heating and Air Conditioning	\$ 20,000	-	\$ 20,000
5813 Storage Building	1,000	-	1,000
5970 Paving	14,000	-	14,000
5960 Gates	2,000	-	2,000
5980 Painting	<u>5,000</u>	<u>-</u>	<u>5,000</u>
Total	\$ 42,000	-	\$ 42,000
Non-recurring	\$42,000	-	-



## Agriculture

## Meat &amp; Poultry Inspection Service

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 3/4 of 87

Name of Program Change: Meat &amp; Poultry Inspection Compliance

1. Objective: To provide Meat and Poultry Inspectors with additional training to improve inspection service plant coverage (Patrol inspections) to satisfy the projected demands which cannot be adequately met with present resources.
2. Strategies: This program will utilize the additional resources to improve plant compliance with the rules and regulations in meat processing and custom exempt plants on a patrol basis. The alternative to patrol inspection is to hire one inspector for each plant, which would be prohibitive in cost in comparison. During the past fiscal year, inspections were reduced to a minimum due to self-imposed travel restrictions which in many instances caused the program compliance to suffer. In addition to travel restrictions, we also elected not to send inspectors to training schools in order to save money and be assured of living within our budget.

In order to accomplish the above goal the following strategies will be employed:

- a. Send 10 inspectors to Federal processing school in the fall and 10 in the spring for a total of 20 per year. This will assure that patrol inspectors understand and are knowledgeable enough in their actions to satisfy Federal monitoring requirements.
  - b. Increase meat and poultry patrol inspections to insure compliance with the rules and regulations as determined by our area supervisors. This would vary as in any regulatory agency from 1 to 5 inspections per week depending upon the attitude of plant management (voluntary versus mandatory).
3. Measures: Better trained personnel performing more frequent unannounced patrol inspections making on the spot corrections has proven to obtain more compliance with the rules and regulations than any other single factors. Experience has shown that more patrol visits are needed to provide inspection at the level required by law.



	<u>73-74</u>	<u>74-75</u>	<u>75-76</u>	<u>76-77</u>	<u>77-78</u>	<u>78-79</u>
Number of Inspectors Federal Trained	15	7	0	10	20	20
Number of Positions	186	182	180	180	180	180
Number of Plants	333	372	409	415	430	444
Number of Pounds Inspected	194,934,757	198,837,859	215,647,268	226,429,631	237,751,112	249,638,667

4. Narrative: Through various efficiency moves we have been able to handle more plants with fewer inspectors. To accomplish this, it is imperative that inspectors are fully trained and competent. During the last 2 years we have cut travel, saved money and placed our better inspectors on patrol inspection. In doing this, we have exhausted our fully trained inspectors and must school train 20 additional men per year in order to provide the level of inspection required by federal monitoring for compliance with the law.

5. Funding Requirements

Agriculture (Code: 28021)

Meat &amp; Poultry Inspection Subprogram

Meat &amp; Poultry Inspection Compliance

Priority 84 of 87

	<u>1977-1978</u>	<u>1978-1979</u>	<u>TOTAL</u>
3950 Employee Educational Expense (Training at Federal School 20 inspectors per year)	-0-	-0-	-0-
3100 Travel (Air Fare, Travel, per Diem)	<u>\$20,000.00</u>	<u>\$20,000.00</u>	<u>\$40,000.00</u>
TOTAL	\$20,000.00	\$20,000.00	\$40,000.00
Less Estimated Receipts	<u>10,000.00</u>	<u>10,000.00</u>	<u>20,000.00</u>
Appropriation	\$10,000.00	\$10,000.00	\$20,000.00
Non-recurring	-	-	





## Agriculture

## Weights &amp; Measures Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part B. Program Changes

Department Priority 12 of 87

Name of Proposed change: Weights and Measures Improvements1. Objective:

To provide additional weights and measures services to meet the present and projected demands which cannot be adequately met with present resources.

2. Strategies:

This subprogram will utilize the additional resources to provide the increase in services being requested for metrology certification for standards of weight, volume, length and temperature, petroleum tank calibrations, petroleum meter testing, scale testing and metering devices used in the measurement of liquid feed supplement.

In order to accomplish the above goals, the following strategies will be employed:

- a. Hire one Metrologist/Calibrator
- b. Hire one Weights and Measures Inspector
- c. Hire one Trades Helper
- d. Purchase one pick-up truck
- e. Purchase one laboratory balance

3. Measures:

The cross-utilization of personnel and equipment has been done to achieve maximum production with the minimum expenditure of funds; however, the following projected increases in services which are being demanded by industry and the consuming public requires additional resources if these demands are to be met.

	1977-78	1978-79
Weighing devices	2000	3000
Petroleum Vehicle Tank Calibrations	150	200
Federal, State, and Industrial Measurement Standards of Mass, Volume, Length and Temperature	6000	11000

L. P. Gas Meters, Liquid and Vapor	25	50
Package checking program	10000	20000
Liquid Feed Supplement Metering Devices	55	100

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#### 4. Narrative:

The closed circuit petroleum metering systems now being installed at petroleum tank farms has resulted in design changes for large capacity petroleum transport vehicles. These vehicle tanks are now being manufactured and older units are being modified for closed bottom loading and vapor recovery. These design changes require that each tank be calibrated to determine the volume and corresponding weight for each of several different petroleum products. It is estimated that approximately 90 per cent of the 6500 - 9500 gallon capacity petroleum transport tanks in North Carolina will require this calibration. This coupled with the curtailment of the National Bureau of Standards program of providing tests and certification of industry standards of weight, volume, length, and temperature, and the change to metrication has increased the demand for these services.

The increased use of liquid feed supplement in the beef cattle industry has resulted in a growing number of requests for tests of measurement accuracy in feed supplement metering systems. Further, the number of custom slaughtering houses (408) with approximately 850 weighing devices installed and the increased use of full electronic weighing systems in high volume super markets has resulted in requests for services which exceed the subprogram's resources. Because of these limited resources, we have been able to provide all of the above services only on an individual request basis.

If we are to provide these weights and measures services being mandated by the citizens of North Carolina, then the request for additional resources must be provided.

5. Funding Requirements:

Agriculture (Code: 28021)

Weights and Measures Subprogram

Weights and Measures Improvements      Priority 12 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$24,876	\$24,876	\$49,752
(1) Metrologist/Calibrator @ \$9,120			
(1) Weights & Measures Inspector @ \$8,736			
(1) Traders Helper @ \$7,020			
1810 Social Security	1,480	1,505	2,985
1820 Retirement	2,269	2,269	4,538
1830 Hospitalization Insurance	801	801	1,602
2500 Motor Vehicle Operation	2,000	2,000	4,000
2600 Office Supplies and Materials	150	150	300
3100 Travel	3,900	3,900	7,800
5303 Laboratory Equipment	3,000		3,000
5400 Motor Vehicles	<u>4,300</u>	<u>          </u>	<u>4,300</u>
Total	\$42,776	\$35,501	\$78,277
Non-recurring	\$ 7,300	-	-





Agriculture

Gasoline &amp; Oil Subprogram

## III. PLAN FOR THE BIENNIIUM

## Part B. Program Changes

Department Priority 1 of 1 (Highway Fund Code 12733)

Name of Proposed Change: Analytical, Petroleum Measurement, and L. P. Gas  
Measurement and Inspection Program Improvement1. Objective:

To provide additional production output with present analytical personnel, and to provide for additional measurement tests, inspection services, and clerical support to comply with present and projected demands which cannot be met with present manpower and equipment capabilities.

In order to accomplish the above goals, the following strategies will be employed:

2. Strategies:

## a. Analytical

1. The workload of the analytical section will be studied during the 1976-77 year to the end of more cross-utilization of analytical personnel to meet demands.
2. Hire one additional Laboratory Helper for the increased janitorial and courier workload. This helper will clean analytical glassware and instruments, thereby freeing analytical personnel to make an increased number of determinations.
3. Hire one Secretary III to provide adequate clerical support for the increased functions of the sub-program, thereby freeing analytical personnel to make an increased number of determinations.

## b. Petroleum Measurement

1. This section of the sub-program will purchase one trailer mounted closed circuit fill and discharge system prover with vapor recovery capabilities for the test of petroleum metering systems at terminals.

## c. L. P. Gas Measurement and Inspection

1. Hire one additional L. P. Gas Calibrator.
2. Purchase one additional 100 gallon portable L. P. Gas Truck mounted prover with associated drive and pumping equipment, and one-half ton pick-up truck.
3. Hire one Secretary III.

3. Measures:

## a. Analytical:

The freeing of analytical personnel from the tedious and time consuming glassware and instrument cleaning will provide an increase in analytical determinations as given in the table below.



## b. Petroleum Measurement:

Maximum use of adaptable testing equipment is presently being employed in this section of the subprogram however; the projected increase in the tests of terminal metering systems as indicated in Table One requires special type testing equipment if our present and projected increase in work load demands are to be met.

## c. L. P. Gas Measurement and Inspection:

At the present time one calibrator and one L. P. Gas Meter Prover must serve the entire state. This service is provided to 700 L. P. Gas distributors and their delivery vehicles and measuring equipment. The demand for service is increasing and this mandates additional resource needs if these services are to be provided as indicated in the Table One.

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Table One

Analytical Determinations	1977-78	1978-79
	4,000	6,000
Terminal Metering Systems	200	350
L. P. Gas Meters Tested & Vehicles Examined	995	1,095

4. Narrative:

## a. Analytical

1. The adoption of new and additional specifications for petroleum products, the addition of some 4,000 square feet of laboratory space, and the addition of 5 analytical positions during the past biennium, has increased the janitorial, courier, and related duties beyond the capacity of one person, the cleaning of laboratory instruments and glassware has, of necessity, been left to the analysts, thereby, consuming valuable analytical time.

## b. Petroleum Measurement

1. The required change in measurement technology mandated by EPA clean air requirements has necessitated a change in the method of loading petroleum vehicle tanks at major terminal loading points. Approximately 30% of these systems have been changed and others are in the process. To be in compliance with EPA requirements, these systems require a closed circuit fill and vapor recovery system. By necessity of design these metering systems require a more sophisticated prover for testing the accuracy of these meters.

The present equipment available is not adaptable nor is it of sufficient volumetric capacity for conducting tests on these devices. These terminal metering systems measure millions of gallons of petroleum product annually for distribution to the various petroleum outlets in North Carolina, and it is



imperative due to the petroleum volume and monetary value involved that the accuracy of these systems be tested and maintained, and that a prover with this capability be provided.

c. L. P. Gas Measurement and Inspection

1. With one vehicle mounted L. P. Gas Meter test unit and one calibrator it has become an impossible task to render the service being demanded due to the increase in L. P. Gas use. This single unit presently is used to provide service for the delivery system of more than 700 L. P. Gas distributors. Due to present demands and increasing demands it is imperative that one additional test unit and calibrator be provided to render the service required by these distributors and the consuming public.

d. Activity Increase

1. In this subprogram the activity increase will add more necessary clerical work to the clerical staff. This staff is already overworked and the additional amount of work required cannot be handled with the present clerical personnel.



5. Funding Requirements:

Agriculture (Code: 28021)

Gasoline and Oil Subprogram

Analytical, Petroleum Measurement, and L. P. Gas Measurement and  
Inspection Program Improvement Priority 1 of 1 (Highway Fund  
Code 12733)

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 22,020	\$ 22,020	\$ 44,040
(1) Laboratory Helper @ \$5,472			
(1) Liquified Gas Inspector @ \$9,528			
(1) Secretary (III) @ \$7,020			
1810 Social Security	1,310	1,332	2,642
1820 Retirement	2,008	2,008	4,016
1830 Hospitalization Insurance	801	801	1,602
2500 Motor Vehicle Operation	1,800	1,800	3,600
2600 Office Supplies and Materials	200	200	400
3100 Travel	1,800	1,800	3,600
5300 Agricultural Equipment	32,463	-	32,463
5400 Motor Vehicles	<u>4,200</u>	<u>-</u>	<u>4,200</u>
Total	\$ 66,602	\$ 29,961	\$ 96,563
Less Estimated Receipts			
Transfer from Highway Fund	<u>66,602</u>	<u>29,961</u>	<u>96,563</u>
Appropriation	-	-	-
Non-recurring	\$ 36,663		





## Agriculture

## Seed Inspection Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 2 of 87

Name of proposed change: Upgrade Seed Laboratory Facilities

1. Objectives: To renovate space and equipment in order to provide more prompt services, and to give employees adequate space and safe working conditions.
2. Strategies: Space being vacated during the biennium by the Food and Feed Analytical laboratories will be renovated for use by the Seed and Fertilizer Division.
  - a. An exhaust to be constructed at desk height will channel dust, fumes, microorganisms spores and fungicide particles away from ten analysts purity stations and a seed preparation area for health protection.
  - b. A prefabricated walk-in germinator, installed during renovation, will permit adequate germination space for the increasing samples of seeds. This will permit more prompt germination analyses of samples and permit more rapid detection and sales restriction on poor quality seed lots.

The equipment design lends itself to installation in existing structures. This and other models are located in Virginia, South Carolina, Georgia, Florida, Mississippi, Arkansas, Texas and other states.

3. Measures: Establishing safe working conditions for protection of analysts health, as well as meeting OSHA requirements will be the only measure available for the exhaust channel-purity station renewal.

The walk-in germinator will eliminate the need for replacement and addition of reach-in germinators for as much as 15 years, which will cost approximately \$50,000 over that period. In the meantime, adequate germination space will reduce the delay in testing time as two to three weeks in the heaviest sample load period.

4. Narrative Justification: The space and equipment in the seed division has historically been limited. Increasing numbers of samples over the years have resulted in intolerable working conditions.

Furthermore, reorganization in 1974 combined Fertilizer Inspection with Seed Testing, requiring office space for that program. That space was carved from the already crowded Seed Laboratory space.

Increased sample numbers have resulted in the need for more laboratory supplies. Greenhouse work, new this year, requires additional supplies. Additional supply budget is essential for continued current level of operation.

The laboratory space being vacated by the Food and Feed Chemistry analytical labs is being made available to us. To serve the purpose of the Seed and Fertilizer Division, the space must be renovated by relocation of plumbing for sinks, purity stations with adequate exhaust capability, and relocation of germinators (plumbing and wiring). If a walk-in germinator is to ever be provided, it can be more economically and conveniently installed at the time of renovation.

North Carolina is one of the very few exceptions among state seed testing laboratories in the nation that does not have a walk-in germinator, and is the only state which handles the volume of samples received without adequate germinator space. (Several states in the southeast with less volume have two walk-in germinators.)



5. Funding Requirements:

Agriculture (Code: 28021)

Seed Inspection Subprogram

Upgrade Facilities      Priority 2    of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
2320 Laboratory Supplies	\$ 1,000	\$ 1,000	\$ 2,000
3510 Repairs and Maintenance - Building	18,900	-	18,900
5303 Laboratory Equipment	<u>49,900</u>	<u>-</u>	<u>49,900</u>
Total	\$69,800	\$ 1,000	\$70,800
Non-recurring	\$68,800	-	-



## Agriculture

## Fertilizer Inspection Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 26 of 87

Name of proposed change: Improve Fertilizer Program Efficiency

1. Objective: To provide the registration, inspection, testing, reporting and penalty assessments more quickly and efficiently than is now being accomplished.
2. Strategies: Increased efficiency of office and laboratory practices and performances are planned.
  - a. Establish the records of product registration, in-house handling, reporting, penalty computation, and printing of the Fertilizer Bulletin on electronic data processing.
  - b. Update present laboratory equipment for more accurate and efficient sample analyses.
  - c. Add 1 full time fertilizer inspector for inspection work and coordination of part-time inspection activities.
3. Measures: As requested, this program change is not intended to simply enable the program to collect and process additional fertilizer samples. But rather, it constitutes a change in the inspection effort from a strictly seasonal operation to a more year round basis. As currently operated, almost all samples are taken during the weeks just prior to and during the planting season. This request would expand the inspection work to cover fertilizer products being sold during the remainder of the year. In number of samples taken, this change would mean approximately 1,000 additional. The additional inspector would also provide better supervision of temporary personnel during the heavy inspection season.

The development of electronic data processing capability would not mean a significant change in measures of this program. However, such capability would provide more rapid and therefore more meaningful analytical results.

4. Narrative Justification: There is a need for additional inspection samples on a year around basis. Presently, one full time inspector is employed. An additional full time inspector would result in additional samples and would coordinate the work of the part-time inspector in his area. The projection would have one full time inspector in the eastern part of the state, one in the western part of the state, with part time inspectors in each area being coordinated by the full time people. This would relieve the fertilizer administrator of much of his present need to be away from the office trying to coordinate the daily activities of fertilizer inspectors.



The computer program now designed for this activity is in the first order of priority. The manual handling of these records is archaic and requires more time than can be justified. For example, in the compilation of data for the fertilizer bulletin the complete laboratory staff of chemist and helpers work for days, along with all the clerical staff that can be mustered, to prepare the bulletin for printing. This effort must be upgraded for more efficiency, timeliness, and to release chemist and other people from these duties for other work more in keeping with their profession.

Fertilizer products constantly change as manufacturing technology advances. To maintain a strong regulatory program through chemical analysis, updating of analytical equipment is vital. Only through the use of modern equipment can this program keep pace with its statutory responsibility.

5. Funding Requirements:

Agriculture (Code: 28021)

Fertilizer Inspection Subprogram

Improve Program Efficiency      Priority 26 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages 1 Fertilizer Inspector @ \$8,016	\$ 8,016	\$ 8,016	\$16,032
1810 Social Security	477	485	962
1820 Retirement	731	731	1,462
1830 Hospitalization Insurance	267	267	534
2500 Motor Vehicle Operation	-	-	-
3100 Travel	-	-	-
3800 Data Processing Services	5,000	5,000	10,000
5100 Office Furniture and Equipment	110	-	110
5303 Laboratory Equipment	15,680	-	15,680
5400 Motor Vehicles	<u>3,700</u>	<u>-</u>	<u>3,700</u>
Total	\$33,981	\$14,499	\$48,480
Non-recurring	\$19,490	-	-





Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Department Priority 35 of 87

Name of Proposed Changes: Increase in Funds for Livestock Feed

1. Objective: To provide adequate funds necessary to carry out all programs planned for the expanded research work with livestock.

2. Strategies:

Request the restoration of \$50,000 to the Research Stations' budget which was voluntarily withdrawn for Fiscal Year 1976-77.

3. Measures:

The Swine Center at Upper Coastal Plain will be feeding out to finish approximately 800 more hogs. The Swine Program at Tidewater will be up to the planned 90 sow program and the Dairy Head at Piedmont will be increasing steadily toward the planned 120 cow herd.

4. Narrative:

The delays in getting the programs referred to in Section 3 created a situation which permitted the temporary reduction in our livestock feed account. For the 1977-79 biennium, however, all programs will be going and the restoration of these funds will be essential.



5. Funding Requirements:

Agriculture (Code: 28021)  
Research Stations Subprogram  
Increase Funds for Livestock Feed

Priority 35 of 87

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>Total</u>
2311 Livestock Feed	\$50,000	\$50,000	\$100,000
	<hr/>	<hr/>	<hr/>
Total	\$50,000	\$50,000	\$100,000

Total Non-recurring - None





## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Change

Department Priority 36, 37 & 38 of 87

Name of Proposed Changes: Bulk Curing and Handling of Tobacco

1. Objective: To provide adequate bulk curing and handling facilities for Research Stations at Border Belt, Upper Coastal Plain and Oxford.

2. Strategies:

- a. We will work on programs designed to reduce the demand for hand labor.
- b. The cost of energy is very important and ways must be found to prepare tobacco for market in the most economical way.

3. Measures:

Already a high percent of tobacco is cured by bulk systems. We have research stations working with tobacco where no bulk facilities are available.

4. Narrative:

In most instances research stations should lead in introducing new and progressive techniques. This has not been true with regard to bulk handling of tobacco. Research Scientists and Station Superintendents are now convinced that the handling of small quantities of research material can now be successfully handled in bulk equipment, and they feel that we should proceed as rapidly as possible to convert to bulk equipment.





## Agriculture

## Research Stations Program

Request: Bulk Curing and Handling Facilities for Tobacco

Priority 36 of 87

Description:

1. This request involves the purchasing of four prefabricated bulk tobacco curing units to be installed on concrete slabs at Border Belt Tobacco Research Station.
2. These barns will be installed on concrete bases near the existing pack house.
3. Tobacco grown on research plots as well as general crop tobacco will be cured in these barns.
4. The four barns will consist of a total of 1400 square feet of space with an open shed covering 504 square feet adjacent.
5. Slabs will be poured by station employees. The barns will be prefabricated units with attached furnaces.
6. Completion of these units will make it possible to cure all tobacco grown on station by the bulk process. Limited bulk curing systems on other stations have demonstrated the feasibility of using bulk curing for research tobacco.
7. See Number 8
8. Conventional curing barns being replaced by these units will be converted to storage areas.
9. None

Justification:

1. The barn units needed were determined by consultation with Project Leaders, Station Superintendent and Engineers.
2. This project will enable the station to cure all tobacco by bulk handling methods. The trend toward bulk curing is moving rapidly and there is a need for research on varieties and handling techniques adaptable to this system.
3. Should this request be denied, the Research Stations and other agencies will not be in a position to respond to production and curing problems facing growers.
4. There will be some reduction in the hand labor required, and fuel requirements will probably be reduced.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	2,800	-	-	-
Utilities	-	-	-	-
Construction	37,200	-	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 40,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 40,000	\$ -	\$ -	\$ -

2. Cost of Operation:

No additional funds will be required for this project.

## 3. Source of Funds: General Fund

## Agriculture

## Research Stations Program

Request: Bulk Curing and Handling Facilities for Tobacco

Priority 37 of 87

Description:

1. This request involves the purchasing of two prefabricated bulk tobacco curing units to be installed on concrete slabs at Upper Coastal Plain Research Station.
2. These barns will be installed on concrete slabs near the existing pack house.
3. Tobacco grown on research plots as well as some general crop tobacco will be cured in these barns.
4. The two barns will cover an area of 700 square feet.
5. The slab will be poured by station personnel. The barns will be prefabricated with heating units attached.
6. Completion of these units will provide bulk curing facilities to care for one half or more of the tobacco at this station.
7. See Number 8
8. Conventional curing barns replaced by these units will be converted to storage areas.
9. None

Justification:

1. The barn units needed were determined by consultation between the Project Leaders, Station Superintendent, and Engineers.
2. This project will enable the station to cure most tobacco by bulk handling methods. The trend toward bulk curing is moving rapidly and there is a need for research on varieties and handling techniques adaptable to this system.
3. Should this request be denied, the Research Station and other agencies will not be in a position to respond to production and curing problems facing growers.
4. There will be some reduction in the hand labor needs and fuel requirements will probably be reduced.



Cost/Financing:1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	1,000	-	-	-
Utilities	-	-	-	-
Construction	17,000	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$ 18,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 18,000	\$ -	\$ -	\$ -

2. Cost of Operation:

No additional funds will be required for this project.

3. Source of Funds: General Fund

## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Bulk Curing and Handling Facilities for Tobacco

Priority 38 of 87

Description:

1. This request involves the purchasing of two bulk tobacco curing units to be installed on concrete slabs at Oxford Tobacco Research Station.
2. These barns will be installed on concrete slabs fairly near the presently used pack house.
3. Research tobacco will be cured in these barns.
4. These two barns will consist of 700 square feet of curing space.
5. The slabs will be poured and finished by station personnel. The barns will be prefabricated units with self contained gas furnaces.
6. Completion of these units will make it possible to cure all tobacco on the station by bulk systems.
7. See Number 8
8. Some of the old conventional curing barns will be retained for special uses relating to tobacco. Two or three old barns will probably be sold and dismantled.
9. None.

Justification:

1. The barn units needed were determined by consultation between the Project Leaders, Station Superintendent, and Engineers.
2. This project will enable the station to cure most tobacco by bulk handling methods. The trend toward bulk curing is moving rapidly, and there is a need for research on varieties and handling techniques adaptable to this system.
3. Should this request be denied, the Research Station and other agencies will be handicapped in responding to the production and curing problems facing growers.
4. There will be a reduction in the hand labor required and fuel requirements will probably be reduced.

Cost/Financing:1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation		1,500	-	-
Utilities	-	-	-	-
Construction		18,000	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ -	\$ 19,500	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ -	\$ 19,500	\$ -	\$ -

2. Cost of Operation:

No additional funds will be required to operate this project.

3. Source of Funds: General Fund



## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Changes

Department Priority 39 of 87

Name of Proposed Changes: Increase in Dairy Facilities

1. Objective: To increase dairy herd and expand research in the new and modern dairy at Piedmont Research Station.

2. Strategies:

This program, utilizing the new dairy facility, will approximately double the size of the herd, and will be able to provide management information so needed by dairymen of our State.

In order to accomplish the above goals the following strategies will be employed:

- a. Employ an Agricultural Research Technician I to assist in the expanded dairy research program.

3. Measures:

The new dairy facility must expand to 120 cows as rapidly as practical in order to carry out the objectives of the program.

	<u>1977-78</u>	<u>1978-79</u>
Dairy Cattle	10	20

4. Narrative:

The Dairy Supervisor must have additional competent help to assist in the research programs, and for recording data. This person will make it possible to have a trained person available at all times during working hours.



Agriculture  
Research Stations Program

Increase in Dairy Facilities

Priority 39 of 87

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 9,948	\$ 9,948	\$19,896
1 Agricultural Research Technician I @ \$9,948			
1810 Social Security	592	602	1,194
1820 Retirement	907	907	1,814
1830 Hospitalization Insurance	267	267	534
1980 Veterinarian Services	750	1,250	2,000
2311 Livestock Feed	3,000	6,000	9,000
3210 Telephone Service	200	200	400
3300 Utilities	300	300	600
	<hr/>	<hr/>	<hr/>
Total	\$15,964	\$19,474	\$35,438

Total Non-recurring - None





## Agriculture

## Research Stations Subprogram

## III. Plan for the Biennium

## Part B. Program Changes

Department Priority 40 of 87

Name of Proposed Changes: Increased Land for Field Research

1. Objective: To provide much needed suitable land to meet the demands of Research Scientists at Tidewater and Horticultural Crops Research Stations.

2. Strategies:

We are now in the process of draining and clearing approximately 235 acres which have been designated by soil specialists as excellent land for agricultural research purposes. Also, 37 acres have been purchased and has now been made available for research at Oxford Tobacco Research Station.

- a. In order to meet our objectives in this area, additional equipment and support funds will need to be provided and an Agricultural Research Technician I should be added to the staff at Tidewater Research Station to assist the Superintendent and other supervisory personnel in handling the increasing volume of technical material at this station.
- b. In order for the increased programs at this station to be properly handled and to give the Project Leaders reliable assistance in accumulating data, an Agricultural Research Technician I must be employed.

3. Measures:

Clearing this land and making it available for agricultural research will proceed as rapidly as possible.

	<u>1977-78</u>	<u>1978-79</u>
Research Plot Land	35 acres	70 acres

4. Narrative:

While only a relatively small percentage of the subject land will be suitable for research during this biennium, there will be a great amount of work involved in land preparation and drainage. Most of this land should be ready for research during the next biennium.





5. Funding Requirements:

Agriculture ( Code 28021)  
 Research Stations Subprogram  
 Increased Land for Field Research

Priority 40 of 87

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 9,948	\$ 9,948	\$19,896
(1) Agricultural Research			
Technician I @ \$9,948			
1810 Social Security	592	602	1,194
1820 Retirement	907	907	1,814
1830 Hospitalization Insurance	267	267	534
2312 Fertilizer	1,400	2,800	4,200
2313 Agricultural Chemicals	1,000	1,500	2,500
2319 Other Agricultural Supplies	500	500	1,000
2500 Motor Vehicle Operation	500	1,000	1,500
3520 Repairs & Maintenance Equipment	400	700	1,100
5300 Agricultural Equipment	12,000	-	12,000
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Total	\$27,514	\$18,224	\$45,738
Total Non-recurring	\$12,000		



## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Changes

Department Priority 41 of 87

Name of Proposed Changes: Employment of Agriculture Research Assistant I

1. Objective: To provide competent personnel to assist with research work at Border Belt Tobacco Research Station.

2. Strategies:

We plan to seek aid from all known sources in order to find a qualified person to fill this position.

3. Measures:

In the past, at this station, the tobacco supervisor has had the responsibility of assembling research data and acting as overall foreman. The programs at Border Belt now require an additional competent person to share this work.

4. Narrative:

Like some other stations, the research programs with tobacco seem to increase. From direct seeding tests to programs dealing with late plantings, many experiments are conducted which require trained people to handle. The limited staff at Border Belt simply cannot adequately handle all of this work without additional, reliable full time help.





5. Funding Requirements:

Agriculture ( Code: 28021)

Research Stations Subprogram

Employment of Agricultural Research Assistant I for Border Belt Tobacco

Research Station

Priority 41 of 87

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$6,720	\$6,720	\$13,440
Agricultural Research			
Assistant I @ \$6,720			
1810 Social Security	400	407	807
1820 Retirement	613	613	1,226
1830 Hospitalization Insurance	267	267	534
	<hr/>	<hr/>	<hr/>
Total	\$8,000	\$8,007	\$16,007





Agriculture

Research Stations Subprogram

III. Plan for the Biennium

Part B. Program Changes

Department Priority 42 & 43 of 87

Name of Proposed Changes: Improvement in Crop Drying Systems.

1. Objective: To provide adequate crop drying systems for peanuts at Peanut Belt and corn and peanuts at Upper Coastal Plain Research Stations.

2. Strategies:

We must provide suitable drying facilities at these stations to give the protection to crops needed to prevent moisture damage, thereby avoiding failures in research projects with these crops.

3. Measures:

In excess of 100 acres of peanuts and 60 acres of corn are involved in research projects under the direction of twenty project leaders at these stations.

4. Narrative:

At the most recent Research Stations review at N. C. State University involving these stations, the Department Heads and Project Leaders strongly urged that something be done to provide adequate crop drying systems for peanuts and corn produced for research at these locations.



## CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Improvement in Crop Drying Facilities for Upper Coastal Plain Research Station

Priority 42 of 87

Description:

1. This project entails the construction of a pole type shed with open sides 42' x 50' with aluminum roof. The installation will require a 42" fan and heater drying system with a six hole metal plenum to which six drying trailers will be used for drying grain and peanuts.
2. The construction will be on State property located at Upper Coastal Plain Research Station, near Rocky Mount.
3. The project leaders from the University have been critical of the lack of adequate crop drying facilities at this station. This project is intended to bring the crop drying facilities up to an acceptable level.
4. 2100 square feet of space will be required for this project.
5. No unusual construction.
6. This project will enable us to dry peanuts and grain in accordance with Research Project Leaders' instructions.
7. The limited facilities on the station now will be used primarily for drying rotation crops, with the new drying system handling research work.
8. Covered in 7.
9. None

Justification:

1. The plans for this project were developed as a result of consultation with the Station Superintendent, Project Leaders and Engineers.
2. This drying unit will permit more efficient harvesting of peanuts and corn.
3. This facility will reduce the problem of delay in harvesting and drying due to insufficient capacity. This added unit will make it possible to obtain more accurate data on research products resulting from the ability to harvest at the most desirable time.
4. The operating cost will not be lowered by this project, but the quality of the research programs should be improved as indicated in Number 3.



Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	25,000	-	-	-
Fixed Equipment	-	-	-	-
Sub Total	\$25,000	\$ -	\$ -	\$ -
Movable Equipment	10,000	-	-	-
Total	\$35,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional cost for this project.

## 3. Source of Funds: General Fund

## CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Addition to Peanut Drying System for Peanut Belt Research Station

Priority 43 of 87

Description:

1. This project entails the construction of a 12' x 42' pole frame drying shed with an air channel running through the building for drying peanuts. Two peanut trailers will also be required.
2. The construction will be on State property at Peanut Belt Research Station, Lewiston.
3. The project will be used primarily for drying special peanuts in the research program at this station.
4. The shed will be 504 square feet using two peanut drying trailers.
5. No unusual construction.
6. This unit will be used as stated in Number 3, and will supplement the drying equipment at this station.
7. The other facilities on the station will adequately handle all peanuts except individual plot work which has to be handled separately.
8. Present facilities will continue in use.
9. None.

Justification:

1. The plans for this structure were made by the Division Engineers after consultation with Research Scientists from the University and the Station Superintendent.
2. This facility will enable a more orderly drying program for peanuts harvested from research plots.
3. This unit will reduce the danger of plot peanuts being mixed with regular crop, thereby, distorting data.
4. With the new unit, the problem and method of keeping plot peanuts separated will require much less hand labor.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	6,000	-	-	-
Fixed Equipment	-	-	-	-
Sub Total	<u>\$6,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Movable Equipment	<u>6,000</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>\$12,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

2. Operating Cost:

No additional funds will be required for this project.

## 3. Source of Funds: General Fund



Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Department Priority 44 of 87

Name of Proposed Changes: Completing the Swine Finishing Floor at Upper Coastal Plain Research Station.

1. Objective: To complete the swine demonstrational facilities at Upper Coastal Plain Research Station.

2. Strategies:

- a. The Swine Center at Upper Coastal Plain will continue to be a source of information for swine producers of North Carolina.
- b. The Swine Center is open each Wednesday for visitors to inspect and be shown the management systems used at the center.
- c. The extension service will continue to use the center in their demonstrational and educational programs.
- d. Training classes for extension and vocational education personnel as well as individuals will continue.

3. Measures:

The completion of the Swine Finishing Floor as originally intended will make it possible to finish all hogs to the proper market weight. By adding the 37' x 75' finishing floor all hogs can be finished to approximately 220 lbs. In the past, due to limited space, approximately 800 feeder pigs have been sold and finished hogs have been sold light because of crowding.

4. Narrative:

The additional profit derived from finishing all hogs thereby increasing receipts from this operation, will pay for the construction of the finishing floor and necessary lagoon in two to three years.



## 5. Funding Requirements:

Agriculture ( Code: 28021)

Research Stations Subprogram

Completing the Swine Finishing Floor at Upper Coastal Plain Research Station

Priority 44 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1980 Veterinarian Services	\$ 500	\$ 500	\$ 1,000
2311 Livestock Feed	15,000	15,000	30,000
3300 Utilities	<u>1,050</u>	<u>1,200</u>	<u>2,250</u>
Total	\$16,550	\$16,700	\$ 33,250

Total Non-recurring





CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Completion of the Swine Finishing Floor at Upper Coastal Plain  
Research Station

Priority 44 of 87

Description:

1. This project involves the erection of an additional Swine Finishing Floor 37' x 75' in order to feed to finish all hogs produced at this facility.
2. This building will be at the swine development center at Upper Coastal Plain Research Station near Rocky Mount.
3. This facility will enable the center to finish approximately 800 more top hogs per year.
4. The building will be 37' x 75' = 2775 square feet with three pens on each side approximately 16' x 24'.
5. Floors will be concrete slat with an under the floor waste tunnel.
6. This building will complete the planned facility at the station and will enable marketing of all hogs at finished weights.
7. In the past, approximately 40% of pigs have been sold as feeder pigs due to lack of finishing space.
8. None
9. None

Justification:

1. This building is to be constructed according to plans and specifications approved by the Animal Science Department at N. C. State University.
2. As stated above, approximately 800 additional hogs can be marketed on a finished basis.
3. The original plan for this facility called for a complete farrow to finish programs. Lack of funds have necessitated the facility to be completed in stages.
4. The increased receipts generated by the ability to finish all hogs to the desired weight will, according to the extension economist at N. C. State University, pay for this project within three years.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	500	-	-	-
Utilities	500	-	-	-
Construction	23,500	-	-	-
Fixed Equipment	500	-	-	-
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Sub Total	\$ 25,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 25,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	1,050	1,200	1,200	1,200
Maintenance, Total Annual Additional	-	300	500	500
Other, Total Annual Additional	15,500	15,200	15,000	15,000

## 3. Source of Funds: General Fund



Research Stations Subprogram

III. Plan for the Biennium

Part B. Program Changes

Department Priority 45 - 49 of 87

Name of Proposed Changes: Erection of Suitable Equipment Storage Facilities

1. Objective: To provide adequate storage space to properly care for equipment.

2. Strategies:

It is our desire to better protect expensive farm equipment thereby prolonging their satisfactory use, and to do this we must provide additional storage buildings.

In our efforts to conform to all OSHA standards, we find it necessary to add restroom and shower facilities at some locations for employee use and protection.

3. Measures:

Facilities as described above are grossly inadequate at Horticultural Crops/Clinton, Upper Mountain, Oxford Tobacco, Tidewater, and Upper Coastal Plain Research Stations.

4. Narrative:

In order to accomplish more without substantially increasing personnel, larger, more sophisticated equipment requiring more storage room is being used. The cost of these items seems to excalete continuously. In order to protect the investment made in this equipment, we consider it very important to properly protect it from weather damage which occurs when exposed.



CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Machinery Storage Building and Restroom for Upper Mountain Research Station

Priority 45 of 87

Description:

1. This request entails the construction of a 24' x 30' machinery storage building with an attached 6' x 12' section for two restrooms.
2. The building will be on State owned property at Upper Mountain Research Station, near Laurel Springs.
3. There is insufficient storage space for equipment at this station, and this building will be used for that purpose. Also, restroom facilities for employees do not meet OSHA standards.
4. This building will require 792 square feet.
5. No unusual construction.
6. This structure will enable us to properly protect from weather, items of equipment which at present must remain exposed.
7. Covered in Number 3.
8. No structure will be relocated
9. None

Justification:

1. The size and plans for this structure were developed by our staff of Agriculture Engineers after reviewing the equipment and storage requirements.
2. This building will make it possible to house all major pieces of equipment and provide much needed restroom facilities for employees.
3. As previously indicated, expensive agricultural equipment which is not protected from weather creates excessive maintenance cost.
4. This building will cause equipment to have a longer, useful life and reduce operating cost.



Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	-	22,000	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ -	\$22,000	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ -	\$22,000	\$ -	\$ -

2. Operating Cost:

No additional funds required for this project.

## 3. Source of Funds: General Fund

# CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: General Storage Building for Upper Coastal Plain Research Station

Priority 46 of 87

## Description:

1. This request entails the construction of a 26' x 50' frame building with galvanized roof and siding, with 12' open shed on side. This building will be a general equipment storage area.
2. The building will be situated on State owned property at Upper Coastal Plain Research Station, near Rocky Mount.
3. We do not have sufficient storage areas for the expensive farm equipment. This building will be used for that purpose.
4. The building will require 1900 square feet overall.
5. No unusual construction.
6. This structure will enable us to properly protect from weather, items of equipment which we are now unable to do.
7. Other structures on the station do not have the height and open space required for above described storage.
8. No structure will be relocated.
9. None

## Justification:

1. The size and plans for this structure were developed by our staff of Agricultural Engineers after reviewing the equipment and storage requirements.
2. This building will make it possible to house all major pieces of equipment.
3. As previously indicated, sophisticated agricultural equipment which is not protected from the weather creates excessive maintenance cost.
4. This building will cause equipment to have a longer, useful life and reduce operating cost.

## Cost/Financing

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	18,000	-	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 18,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 18,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional funds required for this project.

## 3. Source of Funds: General Fund



## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Machinery Storage Building for Tidewater Research Station

Priority 47 of 87

Description:

1. This request entails the construction of a 32' x 100' pole frame structure enclosed on three sides for storing large farm equipment.
2. The building will be situated on State owned land at Tidewater Research Station near Plymouth.
3. We do not have a suitable building for storing large and expensive farm equipment. This building will be used for that purpose.
4. This building will require 3200 square feet.
5. No unusual construction
6. This structure will enable us to properly protect from weather, large items of equipment which we are now unable to do.
7. Other structures on the station do not have the height and open space required for above described storage.
8. No structure will be relocated
9. None

Justification:

1. The size and plans for this structure were developed by our staff of Agriculture Engineers after reviewing the equipment and storage requirements.
2. This building will make it possible to house all major pieces of equipment.
3. As previously indicated, sophisticated agricultural equipment which is not protected from the weather creates excessive maintenance cost.
4. This building will cause equipment to have a longer, useful life and reduce operating cost.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition:	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	25,000	-	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$25,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$25,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional funds required for this project.

## 3. Source of Funds: General Fund

CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Equipment Storage Building for Horticultural Crops Research Station

Priority 48 of 87

Description:

1. This request entails the construction of a 32' x 100' pole frame structure enclosed on three sides for storing large farm equipment.
2. The building will be situated on State owned property at Horticultural Crops Research Station near Clinton.
3. Suitable storage space is not available for storing large equipment at this station. The building will be used for that purpose.
4. This building will require 3200 square feet.
5. No unusual construction.
6. This structure will enable us to protect properly from weather, large items of equipment which we are now unable to do.
7. Other structures on the station do not have the height and open space required for above described storage.
8. No structures will be relocated.
9. None.

Justification:

1. The size and plans for this structure were developed by our staff of Agricultural Engineers after checking the equipment and storage needs.
2. This building will make it possible to house all major pieces of equipment.
3. As previously indicated, sophisticated agricultural equipment which is not protected from weather creates excessive maintenance cost.
4. This building will cause equipment to have a longer, useful life and reduce operating cost.



Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	-	35,000	-	-
Fixed Equipment	-	-	-	-
Sub Total	\$ -	\$ 35,000	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	\$ -	\$ 35,000	\$ -	\$ -

2. Operating Cost:

No additional funds required for this project.

## 3. Source of Funds: General Fund

## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Machinery Storage Building for Oxford Tobacco Research Station

Priority 49 of 87

Description:

1. This request entails the construction of a 32' x 115' pole frame structure enclosed on three sides for storing large farm equipment.
2. The building will be situated on State owned property at Oxford Tobacco Research Station, Oxford, North Carolina.
3. We do not have a suitable building for storing large and expensive farm equipment. This building will be used for that purpose.
4. This building will require 3680 square feet.
5. No unusual construction.
6. This structure will enable us to properly protect from weather, large items of equipment which we are now unable to do.
7. Other structures on the station do not have the height and open area required for above described storage.
8. No structures will be relocated.
9. None

Justification:

1. The size and plans for this structure were developed by our staff of Agricultural Engineers after reviewing the equipment and storage requirements.
2. This building will make it possible to house all major pieces of equipment.
3. As previously indicated, sophisticated agricultural equipment which is not protected from the weather creates excessive maintenance cost.
4. This building will cause equipment to have a longer, useful life and reduce operating cost.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	24,000	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$24,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$24,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional funds required for this project.

## 3. Source of Funds: General Fund



## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Changes

Department Priority 50 of 87

Name of Proposed Changes: Expansion of Poultry Research Program

1. Objective: To enlarge the flock and modernize facilities thereby making it possible to continue the egg production tests and increase research dealing with poultry production at Piedmont Research Station.

2. Strategies:

The old buildings being used for the Random Sample Laying Test are to be renovated and with the new buildings the flocks can be increased to accomodate extensive research in poultry production. The Random Sample Testing program will continue but will not be expanded.

The renovation of the presently used poultry buildings is essential in order that test can be conducted under current recommended production environmental conditions.

In order to handle the increased research data and supervise the expanded research programs planned for this project, an Agricultural Research Technician I must be employed.

3. Measures:

In order to provide the birds needed to meet the requests by Research Scientists, the flocks must be increased as follows:

<u>1977-78</u>	<u>1978-79</u>
2000	3000

4. Narrative:

The poultry work at Piedmont Research Station for many years was primarily a Random Sample Laying Test with entries sent in from various areas of the United States and some outside of the United States. While this program has gained world wide recognition and praise, many problems involving production and management techniques need investigation. The previously mentioned strategies will make this possible.

1. Introduction

Research Station, Washington

Washington, D.C.

Washington, D.C.

1.1. The purpose of this study is to determine the effect of the new program on the production of the research station.

1.2. The study was conducted in the following manner:

1.3. The study was conducted in the following manner:

1.4. The study was conducted in the following manner:

1.5. The study was conducted in the following manner:

1.6. The study was conducted in the following manner:

1.7. The study was conducted in the following manner:

1.8. The study was conducted in the following manner:

1.9. The study was conducted in the following manner:

1.10. The study was conducted in the following manner:

2. Results

2.1. The results of the study are as follows:

2.2. The results of the study are as follows:

2.3. The results of the study are as follows:

3. Conclusion

3.1. The results of the study are as follows:

## 5. Funding Requirements:

Agriculture (Code: 28021)

Research Stations Subprogram

Expansion of Poultry Research Program

	Priority 50 of 87		
	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 9,948	\$ 9,948	\$ 19,896
1 Agricultural Research Technician I @ \$9,948			
1810 Social Security	592	602	1,194
1820 Retirement	907	907	1,814
1830 Hospitalization Insurance	267	267	534
2311 Livestock Feed	1,500	2,000	3,500
3300 Utilities	<u>300</u>	<u>300</u>	<u>600</u>
Total	\$ 13,514	\$ 14,024	\$ 27,538

Total Non-recurring



Department of Health Research Program  
 Research National Laboratory  
 Bethesda (Code 250)  
 Planning Department

Summary of

	1971-72	1972-73	1973-74
1. Personnel and Office	2,500	2,500	2,500
2. Administrative Services	1,500	1,500	1,500
3. Technical Services	1,500	1,500	1,500
4. Medical Services	1,500	1,500	1,500
5. Laboratory	1,500	1,500	1,500
6. Hospital and Outpatient Services	1,500	1,500	1,500
7. Research Fund	1,500	1,500	1,500
8. Miscellaneous	1,500	1,500	1,500
<b>Total</b>	<b>13,000</b>	<b>13,000</b>	<b>13,000</b>

Total Non-recurring

## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

Research Stations Program

Request: Renovation of Five Poultry Houses at Piedmont Research Station

Priority 50 of 87

Description:

1. The five poultry houses at Piedmont Research Station were constructed between 1957 and 1959. These buildings must be renovated to provide the research capability needed at this time. These buildings are 34' x 163', containing 5,542 square feet each.
2. These buildings are located on State property at Piedmont Research Station, near Salisbury, North Carolina.
3. These buildings will house approximately 9,000 birds used in poultry research.
4. There will be approximately 28,000 square feet involved in this project.
5. Special watering systems will be installed and will require a ventilation system in each house with a capacity of 30,000 cfm in the summer and 900 cfm in the winter.
6. This project will enable the continuation of the Random Sample Egg Testing Program, and will make it possible to do much needed production and flock management research.
7. Covered in #6.
8. None relocated.
9. None.

Justification:

1. The space requirements and cages to be installed are based on recommendations from the Poultry Science Department at N. C. State University.
2. This project will permit a bird population increase of about 3,000 to allow expanded research related to production and management.

3. The renovation of these obsolete buildings is necessary to provide meaningful information to poultry and egg producers of North Carolina. The present facilities will not permit the expansion into other areas of research as requested by Scientists at North Carolina State University.
4. The operating cost of this facility will not be reduced, however, a much expanded research program will be possible.

Cost/Financing:

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	2,000	-	-	-
Utilities	1,500	-	-	-
Construction	91,500	-	-	-
Fixed Equipment	35,000	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 130,000	\$ -	\$ -	\$ -
Movable Equipment	3,000	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 133,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$11,714	\$11,724	\$11,724	\$11,724
Utilities, Total Annual Additional	300	300	400	450
Maintenance, Total Annual Additional	-	-	500	500
Other Total Annual Additional	1,500	2,000	2,000	2,000

3. Source of Funds: General Fund



Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Priority 51 of 87

Name of Program: Feed Storage and Handling Facilities at Bull Testing Station-Piedmont

1. Objective: To provide feed storage and handling equipment and a weigh wagon for the Bull Testing Station.

2. Strategies:

In order to meet the objectives of this program, the following strategies will be employed:

- a. Erect two 20' x 60' silos with unloaders.
- b. Provide a 5 ton storage tank for feed supplements.
- c. Pour a 40' feed trough with a concrete slab for each of the six feed lots.
- d. A weigh wagon and tractor are necessary for obtaining progress records on weight gains.

3. Measures:

This facility was designed to accommodate 120 bulls in feed test for a period of 140 days. With the proposed feeding facility, full capacity is expected annually.

4. Narrative:

This bull testing station located on and operated by the personnel at Piedmont Research Station is a cooperative effort of the N. C. Department of Agriculture in conjunction with the N. C. Cattlemen's Association and the Animal Science Department at N. C. State University. The use of strictly commercially prepared feed has not proven satisfactory, and the Project Committee has strongly urged that facilities for storing silage and other feeds be provided. The Division Engineer working with the Project Committee selected the equipment requested for this program.

The Cattlemen's Association provides the feed, and will arrange for off station silage production.



## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Improve Facilities at Bull Testing Station-Piedmont

Priority 51 of 87

Description:

1. This project entails the installation of facilities suitable for storing silage and other feeds for 120 bulls on test. (See previous page for details).
2. The equipment will be placed on State owned property at Piedmont Research Station.
3. The facilities will provide means of handling and feeding the desired feed for this animal project. Also, with the weigh wagon, animals rate of gain can be recorded without disrupting other Research Station activity.
4. No additional space other than the area already set aside for this project will be required.
5. No unusual or complicated construction required.
6. This project will be the only Bull Testing project in the system.
7. The six lots will continue to be used as they are. There is no feed storage capacity at the site, and the facilities for weighing are not satisfactory and require extra labor.
8. All present facilities will continue to be used.
9. None



Justification:

1. As previously indicated this desired equipment requested was selected by the Management Committee for this project.
2. With this facility complete, the full 120 bulls can be handled with ease.
3. The difficulty in feeding and the weighing system is very time consuming and cumbersome. The weigh wagon will reduce danger of injury to employees as well as the animals.
4. With the new feeding system, the project will become strictly a one man operation at all times.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	300	-	-	-
Utilities	1,000	-	-	-
Construction	41,300	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$ 42,600	\$ -	\$ -	\$ -
Movable Equipment	17,400	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 60,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	300	300	300	300
Maintenance, Total Annual Additional	-	200	500	500
Other, Total Annual Additional	-	-	-	-

## 3. Source of Funds: General Fund

5. Operating Costs

1. The following are the estimated costs for the year 2015:  
- Fuel, Total Annual: \$1,000,000  
- Maintenance, Total Annual: \$500,000  
- Insurance, Total Annual: \$200,000  
- Depreciation, Total Annual: \$1,500,000
2. The following are the estimated costs for the year 2016:  
- Fuel, Total Annual: \$1,200,000  
- Maintenance, Total Annual: \$600,000  
- Insurance, Total Annual: \$250,000  
- Depreciation, Total Annual: \$1,800,000
3. The following are the estimated costs for the year 2017:  
- Fuel, Total Annual: \$1,400,000  
- Maintenance, Total Annual: \$700,000  
- Insurance, Total Annual: \$300,000  
- Depreciation, Total Annual: \$2,100,000
4. The following are the estimated costs for the year 2018:  
- Fuel, Total Annual: \$1,600,000  
- Maintenance, Total Annual: \$800,000  
- Insurance, Total Annual: \$350,000  
- Depreciation, Total Annual: \$2,400,000

6. Summary of Costs

Cost Category	2015	2016	2017	2018
Fuel	\$1,000,000	\$1,200,000	\$1,400,000	\$1,600,000
Maintenance	\$500,000	\$600,000	\$700,000	\$800,000
Insurance	\$200,000	\$250,000	\$300,000	\$350,000
Depreciation	\$1,500,000	\$1,800,000	\$2,100,000	\$2,400,000
Total	\$3,200,000	\$3,850,000	\$4,500,000	\$5,150,000



Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Department Priority 52 of 87

Name of Proposed Changes: Expansion of Irrigation system at Horticultural Crops Research Station/Clinton

1. Objective: To provide permanent irrigation facilities for horticultural crops throughout the station.

2. Strategies:

We will make every effort possible to provide suitable soil in the desired condition to meet the many requests from project leaders at this station. In order to make this goal possible, the following is necessary:

Install permanent irrigation lines to provide frost protection and for the application of moisture at proper times throughout the station.

3. Measures:

A large percent of land on the station is devoted to rapid growing vegetable crops. Approximately twenty five project leaders work on the station with thirty different crops.

4. Narrative:

Since vegetable crops mature in a short period of time, stress due to lack of moisture is very critical. Considerable damage can occur rapidly if proper moisture in the soil is not available at all times. The demand for irrigation at times covers the entire station, and with so many different crops and requirements, fixed irrigation equipment is essential.



CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Expansion of Irrigation System for Horticultural Crops Research Station / Clinton

Priority 52 of 87

Description:

1. This project entails the installation of 3200 square feet of 8" PVC underground main and 60 acres of permanent set irrigation equipment. The purpose is to be able to provide moisture at the desired time throughout the station.
2. This installation will be on State property at the Horticultural Crops Research Station, near Clinton.
3. Research conducted at this station deals mainly with rapid maturing vegetables and fruit crops which require considerable moisture and can be seriously damaged by stress due to extended dry periods.
4. 1632 risers with sprinkler heads will be used, spaced 40' x 40' over the 60 acre area.
5. No unusual construction.
6. This project will enable the station to provide irrigation to all areas as needed.
7. This project will be used in conjunction with existing facilities to meet the program objective.
8. Covered in Number 7.
9. None

Justification:

1. The plans for this project were developed by the Division Engineer after consultation with the Station Superintendent and the Irrigation Specialist at N. C. State University.
2. This project will greatly reduce the danger of loss due to unfavorable weather. For early spring crops, frost protection can be provided.
3. With present facilities, the station cannot provide the irrigation requested by Project Leaders during extended dry periods. This creates many problems and in some cases research work has been seriously affected.
4. After this project has been completed, considerable savings in labor handling irrigation pipe will be possible.



Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	1,000	1,000	-	-
Construction	-	-	-	-
Fixed Equipment	74,000	54,000	-	-
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Sub Total	\$75,000	\$55,000	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$75,000	\$55,000	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	800	1,200	1,200	1,200
Maintenance, Total Annual Additional	-	-	200	500
Other, Total Annual Additional	-	-	-	-

## 3. Source of Funds: General Fund

## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Changes

Department Priority 53-56 of 87

Name of Proposed Changes: Grain Storage and Feed Handling Facilities relating to Feeding and Handling Livestock

1. Objective:

To provide adequate facilities for storing, transporting, and handling feeds for livestock.

2. Strategies:

At Tidewater and Upper Coastal Plain Research Stations, the livestock programs are growing and additional quantities of grain and other feeds must be stored and effectively handled. In order for this to be a reality at these stations, the following strategies must be employed:

- a. Grain storage and feed handling facilities at both stations need upgrading.
- b. A concrete stave silo must be provided at Tidewater.
- c. A fenced cattle feed lot should be installed at Tidewater.
- d. A livestock and feed trailer should be made available for moving animals and feed at Tidewater.

3. Measures:

The plans for the swine program at these stations call for considerably more finished animals during the next biennium. This, while requiring additional feed handling equipment, will substantially increase receipts. We no longer will be selling approximately seven hundred feeder pigs annually at Upper Coastal. However, we will increase our top hog sales by this number.

4. Narrative:

The Beef Cattle and Swine industry in North Carolina is becoming increasingly important to the farmers of this State. In eastern North Carolina, swine production is a major factor in the economic stability of the area. With the completion of the Swine Research Facility at Tidewater, and the Demonstrational Swine Center at Upper Coastal, important information will be available for the public. To give the proper support to these programs, the strategies as outlined in this program change should be provided.





CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Grain Storage and Feed Handling System for Upper Coastal Plain  
Research Station

Priority 53 of 87

Description:

1. This request entails the construction of a grain storage bin with vented floor, heater, fan, and unloading equipment, also feed conveyer system to the swine building.
2. This facility will be located near the swine center at Upper Coastal Plain Research Station, near Rocky Mount.
3. This facility will be used to store and distribute feeds to the various swine buildings.
4. This unit will handle 3000 bushels of grain. The distribution system will be overhead.
5. None.
6. This facility will provide more efficient feed controls and delivery.
7. Most buildings now require considerable hand handling of feeds. The proposed system will reduce man hours needed for this work and delivery of the feed more consistently.
8. No relocations.
9. None

Justification:

1. This proposed system has been approved by the Animal Science leaders at N. C. State University.
2. The use of this system will not enable any expansion of production, but will provide a means for more efficient and economical delivery of feed to the animals.
3. Elimination of the present system requiring much hand labor will reduce the probability of running out of feed.
4. By reducing the amount of hand labor required, savings in labor cost should result.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	-	-	-	-
Utilities	-	-	-	-
Construction	9,000	-	-	-
Fixed Equipment	3,000	-	-	-
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Sub Total	\$ 12,000	\$ -	-	-
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 12,000	\$ -	\$ -	\$ -

2. Cost of Operation:

No additional operating cost involved with this project.

## 3. Source of Funds: General Fund

CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Grain Handling Facilities for Tidewater Research Station

Priority 54 of 87

Description:

1. This request entails the erection of two 6500 bushel storage bins with dryers and elevators at Tidewater Research Station needed to provide additional grain storage capacity.
2. This facility will be erected on State property at the above location.
3. Covered in Number 1.
4. The requested equipment and storage space will add 13,000 bushels to the storage capability at this location.
5. None
6. Because of increasing livestock programs, the demand for feed grain storage space is becoming much greater.
7. The increase in the size of the swine program from 50 to 90 sows necessitates more storage capacity.
8. None to be relocated.
9. None

Justification:

1. The acreage devoted to feed grains and the requirements of the beef cattle and swine programs demand large storage capacities for grain.
2. Approximately 50% increase in the feed requirements for the swine program makes this request necessary.
3. The new facility will make it possible to store on the station a larger percent of feed grains produced.
4. When it is necessary to purchase grain, a larger storage capacity will enable the station to take advantage of favorable prices and quantity buying.



Cost/Financing:

## 1. Cost of Components

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	-	-	-	-
Construction	14,000	-	-	-
Fixed Equipment	<u>11,000</u>	<u>-</u>	<u>-</u>	<u>-</u>
Sub Total	\$ 25,000	\$ -	\$ -	\$ -
Movable Equipment	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$ 25,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional operating cost involved

## 3. Source of Funds: General Fund

## CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Concrete Stave Silo for Tidewater Research Station

Priority 55 of 87

Description:

1. This project calls for erection of a 14' x 35' high concrete stave silo with unloader for the storage of silage for the beef cattle at Tidewater.
2. This facility will be located near the beef cattle feeding area at Tidewater Research Station, near Plymouth.
3. Covered in Number 1.
4. Covered in Number 1.
5. None.
6. This facility will provide suitable storage space for the silage produced at Tidewater and replace an old frame corn crib which is about to fall down.
7. See Number 6.
8. Frame corn crib which is in very poor condition will be removed.
9. None.

Justification:

1. This 14' x 35' stave silo is needed to replace an old corn crib which has been used for silage storage. The building is about to fall, and is no longer suitable.
2. This unit will handle approximately 119 tons of silage for the beef cattle research program.
3. Without this silo this station will be unable to take care of its silage needs.
4. Much less labor will be required to handle the silage with the new silo with unloader.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Preparation	-	-	-	-
Utilities	-	-	-	-
Construction	8,000	-	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 8,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 8,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional operating cost required for this project.

## 3. Source of Funds: General Fund



## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Fenced Cattle Feed Lot for Tidewater Research Station

Priority 56 of 87

Description:

1. A 100' x 115' reinforced concrete slab will be prepared with partitions constructed of galvanized pipe post and wood rails. This project will provide the needed feeding pens to carry out programs planned for this location.
2. This facility will be located on the above research station, near Plymouth.
3. Five separate feeding pens 20' x 100' will be constructed to accommodate the various feeding trials programmed.
4. Covered in Number 1 and 3.
5. None
6. This facility will make it possible to bring cattle on test from pastures into special feeding pens separating them according to the planned program.
7. The presently used facilities are not adequate to properly carry out feed trials.
8. Old fences will be removed and usable longer will be utilized in maintenance work.
9. None

Justification:

1. The size and pen arrangement of this project is based on the recommendations from Project Leaders from N. C. State University to meet their specific needs.
2. This facility will permit additional feed trials and will make it possible to collect more exacting data.
3. The feed lot arrangement will provide an area more easily cleaned and one in which labor cost for feeding and moving animals will be reduced.
4. Covered in Number 3.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Site Development	\$ 500	\$ -	\$ -	\$ -
Utilities	-	-	-	-
Construction	16,500	-	-	-
Fixed Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 17,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 17,000	\$ -	\$ -	\$ -

2. Operating Cost:

No additional funds will be required for this project.

## 3. Source of Funds: General Fund

Agriculture

Research Stations Subprogram

III. Plan for the Biennium

Part B. Program Changes

Department Priority 64 of 87

Name of Proposed Changes: Expand Office space at Tidewater Research Station

1. Objective:

To provide adequate office space for professional personnel stationed at Tidewater.

2. Strategies:

The research work at Tidewater is rapidly increasing and with the new acreage being cleared it will become an even more important center for farmers of this area.

The other professional employees doing special duties relating to agriculture in the area will continue to respond to the need of farmers in that section of the State.

3. Measures:

In addition to the wide range of research done with cattle, swine, soybeans, corn and other crops, the N. C. Department of Agriculture has a permanently assigned agronomist, the Extension Service has a horticultural specialist and Soil Science and Entomology departments at N. C. State University both have scientists located at the station.

4. Narrative:

The Superintendent's normal office requirements, with the above listed specialists, make the office space at Tidewater grossly inadequate.





## CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Addition to Office for Tidewater Research Station

Priority 64 of 87

Description:

1. This request will entail the construction of a 1600 square foot addition to the existing office and will require a central heating and air conditioning unit for the entire building.
2. The structure will be on State owned property and will be attached to the present office at Tidewater Research Station, near Plymouth.
3. This structure is intended to provide office space for three or four professional employees whose position has been permanently assigned to this station.
4. There will be four offices, restrooms, storage room and a conference room.
5. No unusual construction.
6. This building would replace temporary trailer quarters now being used, and provide space for recently appointed employees.
7. The present building was not designed to provide office space for University and N. C. Department of Agriculture specialists who have been recently assigned to this station. Present conditions are extremely crowded and the desired productive work cannot be done under these conditions.
8. The present structure will continue to serve the Station Superintendent's operation as originally planned.
9. None.

Justification:

1. The plans for this office addition were developed by our staff Engineers after consulting with the staff and Experiment Station personnel.
2. This building will provide office space for four professional employees assigned by N. C. Department of Agriculture and N. C. State University to this location.
3. The Extension Soil Specialist, the Entomologist, the Area Agronomist, and the Plant Pathologist are at present crowded into very limited space and cannot function at best. By providing reasonable space for these employees, farmers throughout the area can be better served.
4. A much more effective service program will result from this construction.

Cost/Financing:

## 1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	55,000	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$55,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$55,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	540	540	600	600
Maintenance, Total Annual Additional	-	200	300	300
Other, Total Annual Additional	300	300	300	300

## 3. Source of Funds: General Fund



Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Department Priority 66 of 87

Name of Proposed Changes: Purchase of Additional Research Land for Peanut Belt Research Station

1. Objective: To provide ample acreage to meet the demands of Research Scientists working with peanuts.

2. Strategies:

- a. Attempts will be made to obtain an agreement to purchase, from the owners, of approximately twenty acres of good land contiguous to present station property.
- b. Requests will be made for property control to have the property appraised.
- c. If appraisal is acceptable to owners, a survey will be requested establishing permanent lines.

3. Measures:

The increase in the number of scientists working on this station has created a need for additional acreage. Special work in genetics and disease control is requiring more plot work.

4. Narrative:

This proposed purchase will provide approximately 18 more acres of good plot land and will provide needed land which can be used in the desired rotation for peanut research.

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

Page 21 of 22

## CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Purchase of Small Farm adjacent to Peanut Belt Research Station

Priority 66 of 87

Description:

1. This project entails the purchase of a small tract of land, approximately 20 acres, adjoining the Peanut Belt Research Station for use in the peanut research program.
2. The land in question is contiguous to the present State owned land, and lies directly southeast of the present station property in Lewiston.
3. This is very good research land, and will immediately be used for this purpose.
4. Approximately 18 acres of this land can be used for research plot work.
5. None
6. The plant breeding, weed science studies, and peanut disease researchers are requesting that additional land be made available for their use. The present acreage will not allow additional acreage for this use.
7. In order to maintain proper crop rotation for the peanut work, all presently owned land is utilized to the limit.
8. Covered in Number 6 and 7.
9. None

Justification:

1. This request is based on the land resources requests made by Research Scientists at N. C. State University, and the Station Superintendent.
2. This land will enable the research program to be expanded since almost all of this land is suitable for plot work.
3. For lack of available land, some delays are being experienced in implementing planned research relating to peanuts.
4. None



Cost/Financing:1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ 20,000	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	-	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$ 20,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 20,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	-	-	-	-
Maintenance, Total Annual Additional	-	-	-	-
Other, Total Annual Additional	1,650	1,650	1,650	1,650

3. Source of Funds: General Fund

## Agriculture

## Research Stations Subprogram

## III. Plan for Biennium

## Part B. Program Changes

Department Priority 68 of 87

Name of Proposed Changes: Development of Proposed Lower Piedmont Research Station

1. Objective: To provide additional research land for row crops in order to respond to the special needs of Piedmont North Carolina.

2. Strategies:

In order to provide the facilities and equipment needed to make this an effective program the following strategies must be needed:

- a. A suitable office building must be constructed.
- b. A machinery storage building, shop building, and fertilizer storage building must be built.
- c. Approximately 5000 ft. of 6" underground PVC lines should be installed with a 12 acre setting of portable irrigation system. Two irrigation pumps and five pipe trailers will be needed.
- d. A superintendent's dwelling and a dwelling for the foreman should be provided.
- e. A superintendent, foreman, equipment operator, maintenance mechanic, and a minimum of four farm workers will need to be employed.

3. Measures:

The utilization of this state owned land will provide approximately 350 acres for agricultural research in this area and can be made operational as soon as buildings can be erected and equipment made available and employees selected.

4. Narrative:

This property is now owned by the state and is a portion of the Jackson Training School property. As previously stated, this tract is under study at present to determine the advisability of developing it for agricultural research purposes.





5. Funding Requirements:

Agriculture (Code: 28021)  
 Research Stations Subprogram  
 Development of Lower Piedmont Research Station

Priority 68 of 87

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 63,096	\$ 63,096	\$126,192
1 Farm Superintendent II @ \$14,916			
1 Farm Supervisor @ \$9,120			
1 Mechanic I @ \$7,668			
1 Farm Equipment Operator @ \$6,720			
4 Farm Workers @ \$6,168			
1810 Social Security	3,754	3,817	7,571
1820 Retirement	5,754	5,754	11,508
1830 Hospitalization Insurance	2,136	2,136	4,272
2312 Fertilizer	6,000	6,000	12,000
2313 Agricultural Chemicals	3,000	3,000	6,000
2319 Other Agricultural Supplies	2,500	2,000	4,500
2500 Motor Vehicle Operation	3,500	4,000	7,500
2600 Office Supplies & Materials	250	250	500
3100 Travel	400	400	800
3210 Telephone Service	450	450	900
3250 Postage	150	150	300
3300 Utilities	3,000	3,000	6,000
3510 Maintenance & Repairs Buildings	750	750	1,500
3520 Maintenance & Repairs Equipment	1,000	1,000	2,000
3990 All Other Services	800	800	1,600
4901 Subscriptions & Dues	25	25	50
4903 General Expenses	200	200	400
5300 Agricultural Equipment	75,000	35,000	110,000
5400 Motor Vehicle Operation	8,000	-	8,000
	<hr/>	<hr/>	<hr/>
Total	\$179,765	\$131,828	\$311,593
Total Non-recurring	83,000	35,000	118,000



## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program - Lower Piedmont Research Station

Request: Development of New Research Station near Concord, North Carolina

Priority 68 of 87

Description:

1. This project involves the construction of an office, machinery storage building, fertilizer storage building, and dwellings for the Station Superintendent and Farm Supervisor. Approximately 5000 feet of 6" underground irrigation lines are needed along with a 12 acre setting of portable equipment and two diesel pumps.
2. This project is to be developed on State owned property (now Jackson Training School) near Concord, North Carolina.
3. These facilities will be used to conduct row crop and forage crop research primarily relating to the Piedmont section of North Carolina.
4. The office will contain four offices, machinery storage and shop building will be 50' x 150', fertilizer and chemical building will be 26' x 60'. The Superintendent's dwelling will be a 1500 square foot, 3 bedroom house, and the Supervisor's dwelling will be 1400 square feet.
5. No unusual construction.
6. This facility will enable the Research Scientists at N. C. State University to investigate, more fully, the problems relating to farming in this area of North Carolina.
7. The increase in the size of the dairy at the Salisbury station will decrease the amount of land for research, thereby creating a need for this project. At present, there are no suitable buildings available at the proposed Lower Piedmont Station.
8. None.
9. None.

Justification:

1. The Department Heads at the University have made a preliminary study of this project, and indicate interest in developing this station. The committee established by the last legislature for evaluating the best use for this property has indicated interest in making this farm available for research by transferring ownership to the N. C. Department of Agriculture. This station will have approximately 300 acres available for research.



2. The additional land this project will provide will make it possible to relieve some of the pressure for more land at Piedmont Research Station, and allow for greater support crops for the expanding livestock programs at Piedmont.
3. As previously indicated, the existing station in the area cannot accommodate all requests for project work. As a result, problems in feed grain and forage crops need more studies than can now be handled.
4. No reduction in cost can be expected by this project, but serious problems relating to production in the Piedmont area will be more quickly solved.

Cost/Financing:

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	2,000	-	-	-
Utilities	2,500	-	-	-
Construction	358,500	-	-	-
Fixed Equipment	27,000	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub Total	\$ 390,000	\$ -	\$ -	\$ -
Movable Equipment	30,000	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$ 420,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$74,740	\$74,803	\$74,803	\$74,803
Utilities, Total Annual Additional	3,450	3,450	3,450	3,450
Maintenance, Total Annual Additional	1,750	1,750	1,750	1,750
Other, Total Annual Additional	99,825	51,825	16,825	16,825

3. Source of Funds: General Fund

Agriculture

Research Stations Subprogram

III. Plan for Biennium

Part B. Program Changes

Department Priority 70 & 72 of 87

Name of Proposed Changes: Dwellings for Key Personnel

1. Objective: To provide adequate dwellings for top supervisory personnel.

2. Strategies:

Two dwellings are to be built at Oxford Tobacco Research Station. One for the Agricultural Research Technician, who is the tobacco supervisor, and one for the Farm Supervisor II. At Upper Coastal Plain Research Station, a dwelling is to be built for the Farm Supervisor.

3. Measures:

We think that qualified and competent key people can be retained better if adequate housing is provided, and protection of State property can be monitored more closely.

4. Narrative:

Having competent supervisory personnel living on the stations contributes in many ways to the efficiency of the station's operation. With the varied and often time sensitive work being conducted, some after work hours observation is essential. By providing, at a reasonable cost, an adequate house for these employees, we find that the problems created by emergency situations are handled effectively where supervisors are living on the stations.





CAPITAL IMPROVEMENT REQUEST

Agriculture

Research Stations Program

Request: Construction of Dwelling at Upper Coastal Plain Research Station

Priority 70 of 87

Description:

1. This project entails the construction of a suitable dwelling for the Farm Supervisor at Upper Coastal Plain Research Station. The house will be approximately 1400 square feet.
2. This house will be constructed on State owned land on the above station, near Rocky Mount.
3. The Farm Supervisor will occupy this dwelling.
4. This house will be a three bedroom, two bath house containing approximately 1400 square feet.
5. No unusual construction.
6. This project will make it likely that a key employee will be available at most times should an emergency situation develop.
7. Other living quarters for employees at this station are not suitable for this level employee.
8. Other dwellings on the station will continue to be used for lower level employees.
9. None.

Justification:

1. All of the employees at this level are men with families and a three bedroom, two bath house is necessary. Basic house plans providing this space have been developed by the Division Engineers.
2. By having this employee living on the station, less loss time will result, and closer supervision of station activities can be expected.
3. This employee, close by, will reduce the possibility of vandalism to crops and damage to station equipment and property.

4. Failure to complete a research project, for any reason, is expensive. By having a knowledgeable employee available, certainly the probability of failure due to an emergency situation will be reduced.

Cost/Financing:

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	45,000	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$45,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$45,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	-	-	-	-
Maintenance, Total Annual Additional	-	-	200	300
Other, Total Annual Additional	-	-	-	-

3. Source of Funds: General Fund

## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Research Stations Program

Request: Construction of Two Dwellings for Supervisors at Oxford Tobacco Research Station

Priority 72 of 87

Description:

1. This project entails the construction of dwellings for use by two supervisors at Oxford Tobacco Research Station. The houses will be approximately 1500 square feet each.
2. These houses will be constructed on State owned property at the above station in Oxford.
3. The Tobacco Supervisor and the Farm Supervisor II will occupy these two dwellings.
4. These houses will be approximately 1500 square feet each containing 3 bedrooms and two baths.
5. No unusual construction.
6. This project will make it possible for key personnel to be available at any time an emergency situation should develop.
7. Other living quarters for employees at this station are not suitable for this level employee.
8. Other dwellings on the station will continue to be used for lower level employees.
9. None.

Justification:

1. All of the employees at this level are men with families and a three bedroom, two bath house is necessary. Basic house plans providing this space have been developed by the Division Engineers.
2. By having these key employees living on the station, less loss time will result and closer supervision of station activities can be expected.
3. These employees, close by, will reduce the possibility of vandalism to crops and damage to station equipment and property.



4. Failure to complete a research project, for any reason, is expensive. By having knowledgeable employees available, certainly the probability of failure due to an emergency situation will be reduced.

Cost/Financing:

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development	-	-	-	-
Utilities	-	-	-	-
Construction	110,000	-	-	-
Fixed Equipment	-	-	-	-
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Sub Total	\$110,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	\$110,000	\$ -	\$ -	\$ -

2. Operating Cost:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Additional	\$ -	\$ -	\$ -	\$ -
Utilities, Total Annual Additional	-	-	-	-
Maintenance, Total Annual Additional	-	-	300	500
Other, Total Annual Additional	-	-	-	-

3. Source of Funds: General Fund

## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 29 of 87

Name of Proposed change: Initiating Museum Security System.

1. Objective: To provide security for the museum through a system of trained museum guards whose primary responsibility will be crowd and damage control but who will also be trained to function as interpreters and guides to museum visitors.
2. Strategies: In order to accomplish the above goals the following strategies will be employed:
  - a. Hire an experienced Head Museum Guard to supervise the security force for the museum. This person would also be responsible for maintaining schedules, training new personnel, and discipline.
  - b. Hire five Museum Guards. Three guards will be on duty all day, one on each floor of the museum. Since the museum is open seven days a week and three hundred and sixty three days a year, more than three guards are required to allow for days off, holidays, and vacations without paying premium time and overtime. Also the museum is offering more and more programs during the evenings and on weekends. As these programs increase, two shifts of guards will be required on many occasions.
  - c. Provide distinctive uniforms and assessories to give maximum visibility to the security guard.

3. <u>Measures</u> :	1977-78	1978-79
a. Attendance in Museum	260,000	270,000
b. Education services in museum (Group Programs)	300	350
c. New Exhibits	70	80
d. Study Courses and Workshops in museum	12	16

4. Narrative: Although the History Museum and the Art Museum have security guards, the Museum of Natural History has no guards. During the day large areas of the Museum are subject to vandalism because the staff is



is busy in other areas. On weekends and holidays only the receptionist and one janitor are on duty.

The Museum is beginning to sponsor temporary exhibits of privately owned collections of nature art, carvings, etc., and is morally responsible for their safety. We are also working out loan arrangements with other museums, particularly with the Smithsonian Institution, and we must demonstrate that we can guarantee the safety of these loan collections.

Vandalism and theft have been relatively minor over the past few years simply because the permanent exhibits were outmoded and static and there was no temporary exhibit program. As the museum exhibits undergo renovation and more attractive and valuable materials are displayed or used as accessory material, the probability of damage and theft is markedly increased.



5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Initiating Museum Security System      Priority 29 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$36,600	\$36,600	\$73,200
(1) Head Museum Guard @ \$7,020			
(5) Museum Guards @ \$5,916			
1810 Social Security	2,177	2,214	4,391
1820 Retirement	3,335	3,335	6,670
1830 Hospitalization Insurance	1,602	1,602	3,204
2990 Other Materials and Supplies	<u>5,000</u>	<u>-</u>	<u>5,000</u>
Total	\$48,714	\$43,751	\$92,465
Non-recurring	\$ 5,000	-	-



## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 30 of 87

Name of Proposed change: Hampton Mariner's Museum Program Improvement

1. Objective: To provide a full-scale museum program at Beaufort to illustrate the natural history of the coastal area and to show how the coastal people have utilized these natural resoucres and how the natural environmental has affected life along our coast.
2. Strategies: The following strategies will be used to achieve the above goals:
  - a. Expand the collections of fish, marine life, and marine artifacts illustrating the whaling, fishing, hunting, and seafaring heritage of our coast.
  - b. Expand the program of field trips, short courses, seminars and lectures to better educate the public about the values of our maritime resources.
  - c. Continue to develop public support through contributions of valuable artifacts, documents, and specimens for incorporation into museum exhibits.
  - d. Hire a Curator of Education to develop the educational program of the museum and to work with elementary and secondary teachers along the coast in developing lesson plans and field experiences based on the museum holdings.
  - e. Hire two museum technicians with expertise in the preservation and restoration of marine artifacts, particularly those salvaged from the sea, and to collect materials for incorporation into exhibits at Hampton and at the State Museum in Raleigh.
  - f. Hire one-clerk-typist-receptionist to handle the voluminous correspondence, answer inquiries from the public and school teachers, and to keep the museum open when the staff is involved in field operations.
3. Measures:

	FY 1977-78	FY 1978-79	FY 1979-80	FY 1980-81
Attendance in Museum	25,000	40,000	70,000	100,000
Attendance away from Museum (Group Programs)	500	700	2,000	5,000



Education Services off Premises  
(Group Programs)

	50	75	100	125
Short term Extension courses	6	8	15	25

4. Narrative: The Hampton Museum is located in an old storefront in Beaufort. Until 1974 the Museum was open only during the summer months and staffed by a temporary employee with no museum training or experience. The 1975 General Assembly authorized a full-time curatorship and a small operating budget for the Museum. Although still in the same building extensive renovations, revamping old exhibits and adding new exhibits have converted the museum into a pleasing, well curated addition to the cultural life of Carteret County. The Museum is now open all year seven days a week. The tremendous increase in visitors and daily visits by large school groups have put tremendous strain on the single curator and the two part-time temporary employees who assist him. The requested staff is essential to meeting the increasing demands placed on the museum to furnish a genuine museum experience to the people of Carteret County.

5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Hampton Mariner's Museum Program Improvement

Priority 30 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$36,024	\$36,024	\$72,048
(1) Natural Science Museum Curator I @ \$9,948			
(2) Museum Preparator @ \$9,528			
(1) Clerk-Steno (III) @ \$7,020			
1810 Social Security	2,141	2,177	4,318
1820 Retirement	3,284	3,284	6,568
1830 Hospitalization Insurance	1,068	1,068	2,136
3100 Travel	1,000	1,000	2,000
3210 Telephone Service	500	500	1,000
3250 Postage	<u>100</u>	<u>100</u>	<u>200</u>
Total	\$44,117	\$44,153	\$88,270
Non-recurring	-	-	-





## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 34 of 87

Name of Proposed change: Modernizing Museum Exhibits.

1. Objective: To replace all outmoded and deteriorated exhibits, which are generally antiquated cases full of mounted specimens with little information concerning them, with modern habitat groupings based around an ecological theme.
2. Strategies: The following strategies will be used to achieve the above goals:
  - a. Continue to replace outmoded cases with exhibit cases built according to the best principles of modern museum design.
  - b. Continue to design new exhibits illustrating various aspects of the animal's life history, habitat associations, feeding habits and other aspects of the organism in its proper habitat and community.
  - c. Continue to integrate older exhibit material into new fresh settings better designed to educate the public as to their historical significance.
  - d. Continue to develop exhibits which can be used as "classroom" material by the Education section of the museum and by college and high school classes which come to the museum for instruction on various aspects of natural history.
  - e. Continue to implement our recently organized program of high-quality temporary exhibitions designed to give natural-history oriented amateurs and professionals an opportunity to exhibit their collections.
  - f. Continue to develop exhibit plans for the new museum. All exhibits in the present facility are designed to be either moved intact or integrated into permanent exhibits whenever the new building becomes available.
  - g. Hire two museum technicians to collect specimens, make accessories, aid in case construction and handle all the manifold details of exhibit preparation for this facility and the new museum.

3. Measures: Although the museum has hundreds of visitors who confer with the Education and Research Curators and bring materials to the museum for identification, the majority come to view the exhibits. As the exhibits become more interesting and educational, we expect a marked increase in visitor participation.

	1977-78	1978-79
Attendance in Museum	260,000.	270,000
Proportion of Attendance Which are school children	195,000	202,500

4. Narrative: Until 1974 almost every exhibits case in the museum was outmoded and it was impossible to seal them from dust and insects. We have begun the construction of new exhibits throughout the museum. The Bird Hall and the Front Lobby are nearly complete and plans are made to begin renovating other areas as soon as construction of the airconditioning - central heating system are complete. Design and construction of new exhibit areas often take a year or more to complete. If funds are made available during this biennium we will have completely renovated all areas of the existing museum and then be prepared to begin the long range accumulation of exhibit material to install in the new museum. We cannot wait for the new museum to be completed before we begin exhibits for it; we should have the exhibits ready to put in place virtually as soon as the new building is completed.



5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Modernizing Museum Exhibits      Priority 34 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages (2) Museum Preparator @ \$9,528 (2nd Step)	\$19,056	\$19,056	\$38,112
1810 Social Security	1,134	1,152	2,286
1820 Retirement	1,738	1,738	3,476
1830 Hospitalization Insurance	534	534	1,068
3100 Travel	1,200	1,200	2,400
3600 Freight, Express, Delivery	500	500	1,000
5302 Museum Acquisitions	10,000	10,000	20,000
5304 Exhibit Construction	50,000	50,000	100,000
5500 Other Equipment	<u>1,000</u>	<u>1,000</u>	<u>2,000</u>
Total	\$85,162	\$85,180	\$170,342
Non-recurring	-	-	-





## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 74 of 87

Name of Proposed change: Providing full curatorial services in Research and Collections.

1. Objective: To provide a full range of curatorial services to the museum in order that demands from the public for advice and information about the State's natural resources can be met.
2. Strategies: The following strategies will be employed to obtain the above goal:
  - a. Hire a Curator of Geology who will be broadly trained in earth science and paleobiology.
  - b. Hire a Curator of Botany who will be broadly trained in the population and community aspects of botany and in economic botany.
  - c. Hire three museum technicians to prepare specimens, catalog materials, secure materials for exhibit and otherwise furnish logistical support to the scientific curators of the museum.
3. Measures: It is difficult to predict the exact demand for these additional personnel but the museum is experiencing an ever increasing demand from the general public, other State agencies, and resource-based industries for advice and specimen identification. With the State becoming more and more involved in land-use planning on a broad scale these demands cannot help but increase.
4. Narrative: Properly curated and researched collections are the only source of data on which to base decisions concerning the wise use of our natural resources. If such information is available to all State agencies and the general public, more efficient planning and decision making by these groups would be possible. The only way in which such collections can be developed and maintained is through the use of properly trained curators and technicians.





5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Providing Full Curatorial Services In Research and Collections  
Priority 74 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$48,480	\$48,480	\$96,960
(1) Natural Science Museum Curator I - Geology @ \$9,948			
(1) Natural Science Museum Curator I _ Botany @ \$9,948			
(3) Museum Preparators @ \$9,528 (2nd Step)			
1810 Social Security	2,882	2,931	5,813
1820 Retirement	4,420	4,420	8,840
1830 Hospitalization Insurance	1,335	1,335	2,670
2600 Office Supplies and Materials	1,000	1,000	2,000
3100 Travel	2,000	2,000	4,000
5600 Books	<u>1,000</u>	<u>1,000</u>	<u>2,000</u>
Total	\$61,117	\$61,166	\$122,283
Non-recurring	-	-	-



## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNium

## Part B. Program Changes

Department Priority 76 of 87

Name of Proposed change: Educational Program Improvement

1. Objective: To provide the necessary support staff and materials to satisfy projected demands for natural history interpretive services which cannot be met with present resources. Additional education staff will enable the education section to function more efficiently in meeting the ever increasing demands for its services.
2. Strategies: To accomplish the above goal the following strategies will be employed:
  - a. Hire two Museum Technicians to handle routine bookings of slides and traveling exhibits, mailings of educational materials, maintenance and repair of thousands of pieces of audio-visual material, and making preparations for group programs and workshops.
  - b. Hire one Clerk-Typist to handle the tremendous number of requests for information from the 4,500 member Student Academy of Science and to handle mailings of informational material, such as newsletters, and program announcements to the general Academy membership and school sponsors.
  - c. Purchase necessary audio-visual materials to replace damaged and worn out items and to expand the range of audio-visual materials offered to the schools.
  - d. Purchase the additional office supplies and materials to continue the production of museum brochures about the museum's programs for distribution to teachers, adult visitors, State welcome centers and others who desire them.
  - e. Purchase supplies and materials to continue the production of educational pamphlets and informational bulletins about the natural history of the State for school use.

3. Measures:

	1977-78	1978-79
a. Attendance Away from Museum (Group Programs)	30,000	35,000
b. Audio-visual Materials Loaned (No. of pieces)	55,000	60,000



c. Filmstrips (Loaned)	1,700	1,800
d. Movies (Loaned)	275	300
e. 2 x 2 slides (Loaned)	25,000	25,000
f. Traveling Exhibits (Loaned)	6,700	7,000
g. Education services in museum (Group Programs)	300	350
h. Education services off premises (Group Programs)	300	350
i. Extension courses	12	14
j. Study tours (Short term Extension Courses)	7	9
k. N. C. Student Academy of Science Membership	5,000	6,000

4. Narrative: The current high interest level and need for the type of services and materials offered by the Museum's education program have placed such demands on this part of our program that our production limit has been reached with current staffing and materials. The increased use of the museum's visual material is an illustrative example. During the past ten years the loan of slides, movies, and filmstrips (N. C. subject matter usually not available from other sources) has increased from a few dozen pieces per year to over 23,000 pieces during the 1974-75 fiscal year. The museum's "traveling exhibits" loan program was started with five exhibits in early 1968. Our current holdings are 199 exhibits which were loaned by the museum over 5,800 times during 1974-75. Currently these exhibits are only of birds and mammals, but the need is great for other types of material within the program. The primary users of these materials are the schools of the State and the museum is the only source for this type of material. Another problem area within the museum's education program is the unexpected growth rate of the N. C. Student Academy of Science- which the museum jointly sponsors with the N. C. Academy of Science. The museum granted the first Student Academy Charter in May 1973. At the closing of the school term in 1976 the Student Academy numbered 125 chapters with a membership of over 4,000 students representing 50 of the 100 counties in our State.

In 1973 the museum sponsored its first extension course (Spring Flowers) in cooperation with the N. C. Botanical Gardens. Enrollment was limited and over-subscribed almost immediately. In 1974 the museum and the Botanical Gardens co-sponsored four extension courses - two Spring Flower courses, Birds, and Winter Botany. All courses filled up, and there is a current waiting list of subscribers for future courses. The current museum education program is staffed with three curators and a secretary. As the program has developed, it has been necessary to have curators perform all work functions associated with the program

except minor clerical ones and exhibit preparation. At the current level of operation this practice constitutes inefficient use of professional personnel.





## 5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Museum Educational Program Improvement		Priority 76	of 87
	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 26,076	\$ 26,076	\$ 52,152
(2) Museum Preparator @ \$9,528 (2nd Step)			
(1) Clerk-Steno (III) @ \$7,020			
1810 Social Security	1,550	1,576	3,126
1820 Retirement	2,378	2,378	4,756
1830 Hospitalization Insurance	801	801	1,602
2600 Office Materials and Supplies	2,500	2,500	5,000
2990 Other Materials and Supplies	1,000	1,000	2,000
3100 Travel	<u>1,500</u>	<u>1,500</u>	<u>3,000</u>
Total	\$ 35,805	\$ 35,831	\$ 71,636
Non-recurring	-	-	-



## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 78 of 87

Name of Proposed changes: Providing Clerical Support for Museum Research and Collections Section.

1. Objective: To provide the clerical support to allow the museum Research Section to fulfill its responsibility for all record keeping and accessioning of material coming to the museum and on loan from the museum to other museums and the scientific community.
2. Strategies: The following strategies will be followed to achieve the above goals:
  - a. Hire a clerk-typist to handle correspondence and filing for the Research and Collections section, and to act as registrar for the museum.
3. Measures: During 1975, the Research and Collections division published 25 scientific papers on N. C. natural history and compiled a 300 page report on the Endangered and Threatened Biota of N. C. Drawings, photographs, and detailed specimen analyses have been compiled for the forthcoming Reptiles and Amphibians of North Carolina. Preliminary plans are underway to revise the Birds of North Carolina and to publish a new Mammals of North Carolina. Each of these publications must undergo many detailed revisions before being sent to the publisher and collectively represent a tremendous amount of typing and editing.
4. Narrative: The Research and Collections Division maintains the scientific collections of the museum and prepares detailed reports on these collections. These reports provide other State agencies, the scientific community, the university system, industry and the lay public with accurate data on which decisions such as environmental impact statements can be made. This section also cooperates with the Education section in the preparation of educational materials for teachers, school children, and the general public and furnishes the Exhibits Section with accurate information that allows the museum exhibits to introduce visitors to the resources of our State in attractive, life-like and scientifically accurate settings.





5. Funding Requirements:

Agriculture (Code 28021)

Museum of Natural History Subprogram

Provide Clerical Support for Museum Research and Collections

Section      Priority 78 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 7,020	\$ 7,020	\$14,040
(1) Clerk-Steno (III) @ \$7,020			
1810 Social Security	417	424	841
1820 Retirement	640	640	1,280
1830 Hospitalization Insurance	<u>267</u>	<u>267</u>	<u>534</u>
Total	\$ 8,344	\$ 8,351	\$16,695
Non-recurring	-	-	-





Agriculture

Museum of Natural History Subprogram

### III. PLAN FOR THE BIENNIUM

#### Part B. Program Changes

Department Priority 81 of 87

Name of Proposed change: Updating Museum Library.

1. Objective: The Museum library consisting of over 5000 books, bound journals, scientific papers, photographs, maps and other materials dating back to 1850 will be indexed, cataloged and arranged according to modern library practice with the aid of the State Librarian.
2. Strategies: The following strategies will be used to meet the above goal:
  - a. The current backlog of professional journals, periodicals, and scientific reprints will be bound.
  - b. Books which cannot be used because of deterioration will be repaired and rebound.
  - c. Hire a librarian to provide the necessary services to maintain the library and to make the library more accessible to the public.
  - d. Continue renovation of the library facilities to protect our invaluable holdings.

#### 3. Measures:

	1977-78	1978-79
Books in library	5000+	8000+
Serial Journals in Library	60	100
Exchange periodicals received	200	400
Governmental publications received	100	200
Photographs loaned	50	75
Visitors to Library	200	500

4. Narrative: The museum receives scientific publications from a wide range of sources - subscriptions, exchanges, bequests, and gifts. It thus acquires materials not available in other State agencies but invaluable to them. The museum also houses historic photographs, maps, newspaper clipping, articles written by the museum staff and

other materials dating back to 1850. We receive constant requests for duplicates of such materials which are unavailable elsewhere.

The museum library with its associated catalogs supports all divisions of the museum by making needed information quickly available. If the library facilities could be maintained properly, other State agencies, scientific researchers, historians and students would find it an invaluable source of research data.

### Plan of proposed changes - existing library

1. Organization The present library organization of staff, VHS books, bound volumes, scientific papers, photographs, maps and other materials dating back to 1850 will be retained, maintained and arranged according to current library practices with the aid of the State Librarian.

2. Facilities The following facilities will be used to meet the above goals:

a. The current layout of professional journals, periodicals, and books will be retained.

b. Books which cannot be read because of deterioration will be repaired and preserved.

c. Since a library is needed to provide the necessary services to maintain the library and to make the library more accessible to the public.

d. Facilities and staff of the library facilities to protect and maintain the library.

### 3. Resources

1977-78	1978-79	Needs in library
2000	2000	Books in library
100	100	Serial journals in library
100	100	Reference materials in library
200	200	Periodicals in library
200	200	Governmental publications in library
75	75	Photographic journals
200	200	Materials in library

4. Summary The present library facilities, staff, and materials are in a state of disrepair and need to be replaced and upgraded. The library is a valuable resource for the State and its citizens. The library is a source of information for the State and its citizens. The library is a source of information for the State and its citizens. The library is a source of information for the State and its citizens.

5. Funding Requirements:

Agriculture (Code: 28021)

Museum of Natural History Subprogram

Updating Museum Library      Priority 81 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
1210 Salaries and Wages	\$ 9,528	\$ 9,528	\$19,056
(1) Information and Communication Specialist I @ \$9,528			
1810 Social Security	567	576	1,143
1820 Retirement	869	869	1,738
1830 Hospitalization Insurance	267	267	534
2600 Office Materials and Supplies	500	300	800
5100 Office Furniture and Equipment	<u>5,000</u>	<u>-</u>	<u>5,000</u>
Total	\$16,731	\$11,540	\$28,271
Non-recurring	\$ 5,000	-	-





Agriculture

Museum of Natural History Subprogram

III. PLAN FOR THE BIENNIUM

Part B. Program Changes

Department Priority 83 of 87

Name of Proposed Change: New Museum of Natural History Building.

1. Objective: To provide a Museum of Natural History Building to house the natural history collections of the State and to provide the auxiliary services essential to their maintenance, display, and curating.

It is the responsibility of the North Carolina State Museum of Natural History to provide facilities for the preservation of collections of plants, animals, and minerals of the State and to maintain these collections in such a manner that they are readily available to all who need to use them.

The present museum, now housed in the State Agriculture Building, occupies quarters which are poorly designed to house these collections. In addition, there is inadequate space available to provide suitable work areas and office space to carry out the research, education, public relations, and exhibit programs necessary to educate the public on their natural heritage and to provide guidance on problems of environmental quality and ecological balance.

With space and money at a premium, the ability of individuals and colleges to maintain their collections has reached a critical stage. Many college museums have begun to drastically reduce their activities and put collections in storage, and many private collections have begun to deteriorate. In recent years, old collections of pressed plants and preserved animals have become especially valuable to scientists. As major changes occur in the environment, such as the spread of pollutants, it has become more and more difficult to find "unexposed" samples for comparison. Museum and private collections are often the only source of such samples. The collection of the North Carolina State Museum of Natural History, dating back to 1851, is one such invaluable source.

The Museum should also be able to house specimens collected during periodic stream surveys by the biologists of the North Carolina Wildlife Resources Commission and those collected by scientists doing environmental impact studies for such public utilities as Carolina Power and Light Company and private industry such as Texas Gulf Sulfur. In addition, the museum should make intensive collections from areas that will be irretrievably changed; for example, when a large reservoir created by damming a river system will flood thousands of acres of bottomlands.



Not only is it necessary to house such collections; information concerning them must be readily available to scientists and other researchers. This is a formidable undertaking. For example, the insect collection of the North Carolina Department of Agriculture contains over 18,000 species and over three million individual insects. The herbarium of the University of North Carolina at Chapel Hill contains over 500,000 specimens exclusive of pollen slides and wood samples and slides. It is essential that data concerning these collections be stored in a computer complex. Such a computer system should be an integral part of the American Systematics Computer network which will link all major museums and research facilities into a functional unit so that North Carolina researchers will have information readily available on material in other museums and other museums will have access to data concerning the collections housed in the North Carolina State Museum.

With all the major natural history collections of the State housed in the central facility, these collections and the personnel associated with them would be readily available to researchers from other resource-based State agencies, such as the Wildlife Resources Commission, State Parks, Conservation and Development, and the Forest Service.

Facilities should be available for public lectures and high school and college classes should be able to come to the museum for various kinds of instruction. Space should be available for graduate students, visiting professors, adjunct professors and research associates to work with the Collections. Computer terminals on every college campus could also tie into the computer, so that researchers on these campuses would have ready access to research data.

2. Strategies: In order to accomplish the above goals the following strategies will be employed:

Provide a Museum of Natural History Building to house the natural history collections of the State and to provide the auxiliary services essential to their maintenance, display, and curating. The museum should be organized around three Divisions: The Public Division should include display areas, auditorium, classrooms, sales rooms, lounges, cloak rooms, rest rooms, etc. The Operations Division should include offices and work-rooms for administrative, curatorial, research, and education staffs. The Service Division is conceived with the functioning of the institution and should include work shops, storage, mechanical plant, kitchens, security, and building maintenance facilities, etc.

3. Measures: Renovation of the present museum facilities presently underway are designed to make the museum as functional as possible. However, projected visitor loads and demands on the museum staff cannot be met without additional space.



	1977-78	1978-79
Attendance in Museum	260,000	270,000
Audio-visual Materials loaned (number of pieces)	68,700	74,500
New Exhibits	50	60
Traveling Exhibits loaned	6,700	7,000
Education Services in Museum (Group Programs)	300	350
Extension Courses	12	14
Workshops and Seminars	7	9
N. C. Student Academy of Science Membership	5,000	6,000

4. Narrative: Over the past two years the Museum staff has given first priority to a complete renovation of the existing facility in order to make the most efficient use of all available space. Concurrently, all exhibits in the museum are being restored or replaced and new exhibits, designed in accord with the principles of modern museum design, are being constructed. Increased public awareness of the modifications taking place in the museum has already caused a marked increase in the number of museum visitors. With completion of the central airconditioning-heating system and new lighting, making the museum more attractive, we expect another marked increase in visitors.

Activities of the Research and Collections section of the Museum, formalized in 1974, have resulted in a steady increase in professional visitors to the museum. Scientists, University staff and students, industrial scientists, and scientific personnel from various federal and state agencies visit the museum daily to confer with museum curators, to study the collections or to seek counsel and expertise on problems which the museum staff is uniquely qualified to solve.

The Education section has begun offering short courses, field trips and workshops for adults and children in addition to their other services. Every one offered thus far has filled up and waiting lists for new sections have developed. There is a strong demand for such services and a number of the museum staff, trained teachers in natural history interpretation, would like to expand the Education program to meet this demand.

As the State has become legally involved in land planning on a broad basis with passage of the State Land Planning Act and the Coastal Zone Management Act, there has been a tremendous increase in the demand for scientifically accurate data on the flora and fauna of various regions from state and federal agencies, public utilities, and private industry involved in land use planning or the preparation of environmental impact statements. The museum curatorial staff finds itself hard-pressed to meet all these demands.

If the museum is to meet all the demands legitimately placed on it by the people of the State, a new museum building of proper design must be provided.



## CAPITAL IMPROVEMENT REQUEST

## Agriculture

## Museum of Natural History Subprogram

Request: Museum of Natural History Building

Priority 83 of 87

Description

1. This request entails the construction of a 380,000 square foot building to house the North Carolina State Museum of Natural History.
2. The facility will be located in Raleigh.
3. Activities:
  - Exhibit Halls containing permanent exhibits on natural history
  - Temporary Exhibit Halls
  - Lectures, classes, workshops, seminars
  - Research - by museum staff, research associates and visiting scientists
  - Housing the State's collections of plants, animals, and minerals and all data pertaining to them
  - Movies, slide shows and other audio-visual programs
  - Guided tours of the Exhibits
4. Estimated space required for activities:
  - Public, Operations, and Service Divisions to service the collections listed below. 125,000 sq/ft
  - The North Carolina State Museum of Natural History collections of invertebrates, vertebrates, and minerals 100,000 sq/ft
  - The North Carolina State Herbarium (combining the herbaria of the University of North Carolina at Chapel Hill, North Carolina State University at Raleigh and Duke University at Durham) 75,000 sq/ft
  - The North Carolina State Entomological Service (combining the entomological collections of the North Carolina Department of Agriculture, and the Entomology Department of North Carolina State University at Raleigh) 75,000 sq/ft



In addition, a Computer Complex to store data on these collections in such a way that data retrieval and systems analysis can be carried on efficiently 5,000 sq/ft

TOTAL 380,000 sq/ft

5. Construction requirements will depend on site selection which is undetermined. The facility will have central heat and air-conditioning.
6. See 8
7. The requested building has approximately the same space as the State Archives and History Building and the State Art Museum currently under construction.
8. The Museum of Natural History is located in the 5-story annex of the Agriculture Building. It occupies the basement, first and second floors, and the mezzanine. The space occupied by the museum was initially designed to become office space for Agriculture when a new museum was built and all subsequent renovations have been designed with that end in view. As soon as the museum moves out the construction of partition walls and minor modifications of the air-heating system would convert the museum space into useful office space.

#### Justification

1. No
2. See Strategies, Measures, and Narrative portions above.
3. Not Applicable
4. None

#### Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Construction	-	\$25,800,000	-	-
Movable Equipment	-	200,000	-	-
Total		\$26,000,000		

2. Operating Costs:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual Addition	-	-	-	30,000
Utilities, Total Annual Addition	-	-	-	190,000*

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
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Maintenance, Total Annual				
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Additional	-	-	-	15,000
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Other, Total Annual				
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Additional	-	-	-	10,000
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\*Based on 50¢ sq/ft for electricity only.

3. Source of Funds: General Fund (However, Federal agencies, private philanthropists, and foundations will be requested to provide matching funds)





## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 35 of 87

Name of Proposed change: Hampton Mariner's Museum Building.

1. Objective: To provide a museum building to house the Hampton Mariners Museum's collection of Marine artifacts and marine collections illustrating the natural resources of our coast and to provide the auxiliary services essential to their maintenance, display and curating.
2. Strategies: The following strategies will be employed to meet the above goals:
  - a. Provide a museum building organized around three Divisions:
    1. The Public Division should include display areas, auditorium, classrooms, sales rooms, lounges, cloak rooms, rest rooms, etc.
    2. The Operation Division should include offices and workrooms for administrative, curatorial, research, and education staffs.
    3. The Service Division is conceived with the functioning of the institution and should include work shops, storage, mechanical plant, kitchens, security, and building maintenance facilities.

3. <u>Measures</u> :	FY 1977-78	FY 1978-79	FY 1979-80	FY 1980-81
Attendance in Museum	25,000	40,000	70,000	100,000
Attendance away from Museum (Group Programs)	500	700	2,000	5,000
Education Services off Premises (Group Programs)	50	75	100	125
Short term Extension Courses	6	8	15	25

4. Narrative: The Roy Hampton Museum is housed in temporary quarters in Beaufort, North Carolina. On June 20, 1959, the Hampton Museum was transferred to the North Carolina State Museum of Natural History in Raleigh by virtue of the following action:

The General Assembly of North Carolina do enact: Section 1.  
The State Museum of Natural History is authorized to take possession of, restore and preserve said Museum and as soon as practicable after said restoration to place the same on exhibition and display at appropriate places in the State for the benefit of the public and other interested persons.

From 1959 until 1970, the Museum was housed in the Division of Commercial and Sports Fisheries office building at Morehead City. However, this building was demolished by order of the Governor and Council of State and the Hampton Museum was placed in temporary quarters in two rooms of a vacant automobile showroom in Beaufort, North Carolina. These two rooms were to house the museum only until a new Commercial Fisheries building was completed. Although this building was completed March 6, 1973, no space was provided for the Hampton Museum.

## CAPITAL IMPROVEMENT REQUEST

Agriculture

Museum of Natural History Subprogram

Request: Hampton Mariner's Museum Building

Priority 85 of 87

Description

1. This request entails the construction of a 100,000 square foot building to house the Hampton Mariner's Museum.
2. The facility will be located in Beaufort, North Carolina.
3. Activities:

Exhibit Halls containing permanent exhibits on natural history and the maritime heritage of our coastal region.

Temporary Exhibit Halls

Lectures, classes, workshops, seminars

Research - by museum staff, research associates, and visiting scientists.

Movies, slides shows and other audio-visual programs.

Guided tours of the Exhibits

4. Estimated space required for activities:

- a. Curatorial Functions

1. Collection, preservations, identification, documentation, study and restoration of specimens and other objects. 9,000 sq/ft
2. Storage of Collections 15,000 sq/ft

- b. Display Functions

1. Thematic and changing displays of selected objects and documents from the collection arranged to tell a story 50,000 sq/ft

- c. Display Preparation Function

- d. Education and Public Functions

1. Lectures, school tours, society meetings, films, and social functions. 10,000 sq/ft



2. Reception, information, sales, supervision of display gallery. 5,000 sq/ft
3. Public requirements (restrooms, etc.) 5,000 sq/ft
- e. Mechanical and Janitorial Functions 1,000 sq/ft
5. Construction requirements will depend on site selection which is undetermined. The facility will have central heat and air-conditioning.
6. Programs, exhibits and activities will be coordinated with the State Museum in Raleigh. However, this museum will emphasize marine life, coastal resource management, and house the State's maritime artifacts as they pertain to whaling, fishing, hunting and other resource-based activities.
7. Estimates size based on space required to house Virginia's collections in the Newport News Mariner's Museum and Connecticut's collections in the Mystic Seaport Museum.
8. The Hampton Museum is now housed in a rented building which would no longer be needed by the State.
9. The 1975 General Assembly authorized a full-time curator for the museum and provided \$10,000 per year as operation expenses for the 1975-77 biennium.

#### Justification

1. No
2. See Narrative
3. Not applicable
4. None

#### Cost/Financing

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
1. Cost of Components:				
Construction	-	\$5,490,000	-	-
Moveable Equipment	-	10,000	-	-
Total		\$5,500,000		
2. Operating Costs:				
	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Staff, Total Annual				
Additional	-	-	-	\$ 25,000

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Utilities, Total				
Annual Additional	-	-	-	\$ 60,000*
Maintenance, Total				
Annual Additional	-	-	-	10,000
Other, Total Annual				
Additional	-	-	-	5,000

\* Based on 50¢ sq/ft. for electricity only

3. Source of funds: General Fund (However, Federal Agencies, private philanthropists and foundations will be requested to provide matching funds).





## Agriculture

## Museum of Natural History Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 87 of 87

Name of Proposed change: Installation of Security System at Hampton Museum.

1. Objective: To provide 24-hour security at the Hampton Museum to guard against vandalism, theft and fire particularly during the hours when the museum staff is not present.
2. Strategies: The following strategies will be employed to meet these objectives:
  - a. Install a system of electro-magnetic burglar alarms and a system of smoke and fire detectors which will flash alarms via a telephone hookup to the Beaufort police and fire departments and to the Director of the Museum's residence.
3. Measures: It is difficult to predict measures for such a system. However, the museum has taken out insurance coverage on a collection of marine art for \$12,000 and on historical documents for \$5,000.
4. Narrative: As the Hampton Museum program expands and becomes better known, more people will want to place their collections on exhibit there and the Director is now making plans to secure loan exhibits of maritime artifacts, ships models, etc. from the Smithsonian Institute, Mystic Seaport in Connecticut, The Coast Guard Academy, The Merchant Marine Academy and others. All of these organizations are vitally concerned with safety of their loans and the museum must be in a position to certify to these organizations that all possible precautionary measures are being taken to safeguard the museum from fire, vandalism and theft.



## 5. Funding Requirements:

Agriculture (Code: 28021 )

Museum of Natural History Subprogram

Installation of Security System at Hampton Museum

Priority 87 of 87

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
3210 Telephone Service	\$ 250	250	500
3520 Equipment	1,150	-	1,150
4400 Service and Maintenance Contract	<u>300</u>	<u>300</u>	<u>600</u>
Total	\$1,700	\$550	\$2,250
Non-recurring	1,150	-	-





## Agriculture

## North Carolina State Fair Subprogram

## III. PLAN FOR THE BIENNIUM

## Part B. Program Changes

Department Priority 7 of 87

Name of Proposed Change: Curbing, Gutters and Resurfacing Paved Areas

1. Objective: To provide surface water control and maintain paved areas of the grounds for all weather use.
2. Strategies:
  - A. Repair deteriorated and rough asphalt surfaces.
  - B. Install curbs and gutters to control and remove surface water.
3. Measures: This request will provide support for maintenance and improvements to real property. Such a project will have no meaningful measures to indicate program improvements.
4. Narrative: Surface water on the fairgrounds is causing erosion, producing unsightly damage and creating, to some degree, a safety hazard. With hundreds of thousands of people visiting the grounds annually, it is imperative that solid, all weather walks and drive-ways are maintained. From its own revenues, the Fair has paved large areas of concentrated traffic. Some of these areas are deteriorating and need resurfacing. Large holes are appearing due to the amount of traffic. Other areas, not yet paved, become fields of need during wet weather. With the sizable investment in buildings, on the grounds, it would seem logical to provide the needed drive-ways and walks to maximize the use of facilities.





## CAPITAL IMPROVEMENT REQUEST

Agriculture

North Carolina State Fair Subprogram

Request: Curbing, Gutters and Resurfacing Paved Areas

Priority 7 of 87

Description

1. This request entails resurfacing existing streets along with installation of curbs and gutters at the N. C. State Fairground.
2. This work will be done at different locations within the fenced area of the N. C. State Fairground, Raleigh, N. C. with one exception that is an entrance driveway from Trinity Road to Gate 9. (See attached map for location.)
3. The amounts and areas involved are:
  - A. Street measurement 9,451 linear feet of curbs and gutters
  - B. Pavement width will vary from 16 feet to 35 feet. The average width will be approximately 24 feet.
  - C. Resurfacing of 105,749 square feet.

Justification

See Plan For the Biennium, Part B.

Cost/Financing

1. Cost of Components:

Paving, Curbs, Gutters	<u>1977-78</u> <u>\$75,000</u>
Total	\$75,000

CERTIFICATE OF ANALYSIS

Reference

North Carolina State Fair, Raleigh

Exhibit, Orange, Virginia and surrounding areas

Exhibit 7 of 8

Examination

1. This report details the examination of the exhibit with reference to the U. S. Food and Drug Administration.

2. This report will be done at different locations within the State of North Carolina, Raleigh, N. C. with one exception that is an analysis of the exhibit found in the State of Virginia.

3. The sample was taken from the exhibit.

4. The sample was taken from the exhibit.

5. The sample was taken from the exhibit. The sample will be approximately 100 lbs.

6. The sample was taken from the exhibit.

Examination

The first two samples were taken.

Examination

1. The first sample was taken.

1977-78  
\$10.00  
\$25.00

Total  
\$35.00

## Agriculture

## Distribution of U. S. D. A. Donated Commodities Subprogram

III. PLAN FOR THE BIENNIUM  
Part B. Program Changes

Department Priority 62 of 87

Name of Proposed Change: Food storage and distribution facility

1. Objective: To provide a more adequate facility to be used by the Division in receiving, storing and distributing foods donated by the U. S. Department of Agriculture to the state of North Carolina.
2. Strategies: This program will provide a storage and distribution facility adequate to receive and store food in accordance with approved storage requirements issued by the U. S. Department of Agriculture and the North Carolina Department of Agriculture.

The new facility will replace an obsolete, inadequate facility presently leased by the Division from the John Umstead Hospital.

In order to accomplish this goal, the following strategies will be employed:

- a. Select the best site available in the Raleigh-Butner area for the location of the storage facility.
  - b. Design and construct the building so as to provide both temperature controlled dry storage and refrigerated storage area.
  - c. Provide rail and truck unloading areas and docks for the storage building.
  - d. Provide the required refrigeration equipment for a portion of the building.
  - e. Provide office and worker personnel space as required for Division employees.
3. Measures: While there will probably be some expansion in the volume of food to be handled in the new facility, the chief objective is to provide a more adequate facility to replace the old facility which has been used in the past. The following data give an estimate of the volume of food expected to be handled by the new facility.

Number served	-	1,506 agencies
Number of persons to whom meals are served by agencies	-	561,781 daily
Quantity of food received and distributed	-	16,000,000 lbs.
Value of food distributed	-	\$11,000,000



4. Narrative: The program acts as a distributing agency for all foods donated to the state by the U. S. Department of Agriculture. By state statute and by direction of the Governor of North Carolina, the N. C. Department of Agriculture is designated as the state distributing agency. By virtue of being distributing agency, the N. C. Department of Agriculture has entered into an agreement with the U. S. Department of Agriculture and under the terms of this agreement, the Department is obligated to provide storage and distribution facilities adequate to meet the program requirements.

The program operates two major storage and distribution facilities:

(1) A large modern warehouse facility is leased at Salisbury to meet the program needs in the western half of the state. This facility is adequate; however, the rental paid on this building will equal the cost of the facility in approximately ten years. The rental agreement for this building provides an option for the state to purchase this building at the appraised cost at any time during the life of the ten-year lease agreement.

(2) The storage facility for the eastern half of the state is located at the John Umstead Hospital facility, Butner, N. C. The building being used for storage and distribution was originally constructed by the U. S. Army in 1942 and had a projected life expectancy of five years. The building is entirely wood with no wall or overhead ceiling or insulation. There are cracks between the floorboards up to one-half inch in width allowing dust, dirt and vermin to enter the building freely. The floorboards have repeatedly broken under the weight of the forklift trucks endangering the life and limb of the Department personnel. During the hot summer months, temperatures in the building rise to 100°. Since proper storage requires the maintenance of the temperature not to exceed 70°, we obviously cannot store the foods in accordance with good storage practices. The building has upright structural post approximately 10 feet apart. This factor coupled with the low overhead rafters makes an economical and efficient operation impossible. The building in no way meets minimum requirements for the storage of food.

The cold storage portion of the building is also old, obsolete and inadequate. The insulation in the walls and flooring have deteriorated. The refrigeration machinery is antiquated and requires costly repairs. The building was not constructed so as to permit the use of mechanized equipment thus necessitating much hand labor and inefficient use of storage space. In view of the fact that at any given time the Department will have in storage food valued in excess of one million dollars, it is essential that we provide a more adequate storage if we are to meet the needs of the state.

## CAPITAL IMPROVEMENT REQUEST

North Carolina Department of Agriculture

Distribution of U. S. D. A. Donated Commodities Subprogram

Request: Storage Facility, Butner, N. C.

Priority 62 of 87

Description

1. This request is for the construction of a dry and refrigerated storage and distribution facility for foods donated to the state of North Carolina by the United States Department of Agriculture for distribution to school lunchrooms, certain state institutions, non-profit hospitals, sanitariums and charitable institutions.
2. This facility will be located on N. C. Department of Agriculture land in the Raleigh-Butner area.
3. Activities and services:
  - Receiving USDA donated foods by rail or truck
  - Shipping USDA donated foods by rail or truck
  - Provide dry storage area for USDA donated foods
  - Provide refrigerated storage area for USDA donated foods
  - Provide office and worker personnel space as required for division employees
4. Estimated space required for activities:

- Dry storage	43,200 sq. ft.
- Office	1,800 sq. ft.
- 35°F storage	3,500 sq. ft.
- Minus 10°F storage	4,000 sq. ft.
- No land purchase required but will occupy three acres including truck loading, parking and access area	
- Utilities available within 200 feet	



5. There are no unusual construction requirements other than refrigeration. Offices will be air conditioned. Facility refrigerated areas will have one area with a temperature of 35°F. The other area with a temperature of minus 10°F.

6. This facility is one of two operated by this division.

A large modern facility is leased at Salisbury to meet program needs in the western half of the state. This facility is adequate; however, the rental paid on this building will equal the cost of the facility in approximately ten years.

The storage facility for the eastern half is located at Butner, N. C. The building being used for storage and distribution was originally constructed by the U. S. Army in 1942 and had a projected life expectancy of five years.

7. The Butner dry storage facility is entirely wooden construction with only exterior walls and roof. There are cracks between the floorboards, dirt and vermin enter the building freely. Floorboards are repeatedly broken under the weight of the forklift trucks. During the hot summer months temperatures in the building rise to 100°F while proper storage requires the maintenance of the temperature not to exceed 70°. The building has upright structural posts approximately 10 feet apart. This factor coupled with low overhead rafters makes an economical and efficient operation impossible. The cold storage portion of the building is also old, obsolete and inadequate. The refrigeration machinery is antiquated and requires costly repairs. The building is not constructed so as to permit the use of mechanized equipment.
8. The facilities at Butner will be demolished and the site cleared as their age and condition make them practically worthless.
9. None

#### Justification

1. Essential elements of the various phases of modern warehouse operations were incorporated in the development of this storage facility.
2. This request is for the replacement of an existing facility.
3. (See Item 7 above.)

There are interruptions of service to recipient agencies because the refrigerated storage is separate and apart from the dry storage by several city blocks. The cold storage portion is old, obsolete and inadequate. The insulation in the walls and flooring have deteriorated. The refrigeration machinery is antiquated and requires costly repairs, and very often repairs cannot be made requiring food to be moved to an expensive commercial storage and recipients have to make extra trips to pick up their allocations. The electrical operating cost is much higher than that of modern plant in good condition.



In view of the fact that at any given time the department will have in storage food valued in excess of one million dollars, it is essential that we provide a more adequate storage if we are to meet the needs of the state.

4. (See Item 3 above.)

Cost/Financing

1. Cost of Components:

	<u>FY 1977-78</u>	<u>FY 1978-79</u>	<u>FY 1979-80</u>	<u>FY 1980-81</u>
Land Acquisition	\$ -	\$ -	\$ -	\$ -
Site Development, Access and Parking	8,000	-	-	-
Utilities	2,000	-	-	-
Construction	640,000	-	-	-
Fixed Equipment	150,000	-	-	-
Subtotal	\$800,000	\$ -	\$ -	\$ -
Movable Equipment	-	-	-	-
Total	\$800,000	\$ -	\$ -	\$ -

2. Operating Costs:

There will be no additional operating costs as will use the present staff and operating costs.

3. Source of funds: General Fund

Page 25 of 25

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1863. The letter is signed by Abraham Lincoln and is addressed to the Senate and House of Representatives.

2. The second part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

3. The third part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

4. The fourth part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

5. The fifth part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

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8. The eighth part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

9. The ninth part of the document is a letter from the Secretary of the War Department to the Secretary of the Navy, dated January 1, 1863. The letter is signed by Gideon Welles and is addressed to the Secretary of the Navy.

## 5. Funding Requirements

Agriculture (Code: 28021)

Reserves and Transfers

Merit Salary Increments

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
8312 Merit Salary Increments	-	\$65,563	\$65,563
8321 Reserve for Social Security	-	3,967	3,967
8322 Reserve for Retirement	<u>-</u>	<u>5,980</u>	<u>5,980</u>
Total	-	\$75,510	\$75,510





## 5. Funding Requirements

Agriculture (Code: 28021)

Gasoline and Oil Subprogram

Merit Salary Increments

	<u>1977-78</u>	<u>1978-79</u>	<u>Total</u>
8312 Merit Salary Increments	-	\$ 1,835	\$ 1,835
8321 Reserve for Social Security	-	111	111
8322 Reserve for Retirement	<u>-</u>	<u>167</u>	<u>167</u>
Total	-	\$ 2,113	\$ 2,113
Less Estimated Receipts			
Transfer from Highway Fund	<u>-</u>	<u>2,113</u>	<u>2,113</u>
Appropriation	- 0 -	- 0 -	- 0 -
Non-recurring	-	-	







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